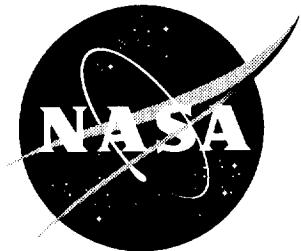


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# High Amplitude Acoustic Behavior of a Slit-Orifice Backed by a Cavity

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### **Foreword/Acknowledgments**

This report was prepared by the Acoustics and Aerospace Technologies Branch of the Aerospace, Transportation, and Advanced Systems Laboratory (ATASL) of Georgia Tech Research Institute (GTRI) for NASA Langley Research Center, Hampton, Virginia, under Grant NAG1-1734.

Mr. Mike Jones was the Project Manager for NASA Langley Research Center. GTRI's Project Director was Dr. K.K. Ahuja.

This work was carried out to obtain data for validation of computational codes being developed by Dr. C. K. W. Tam of Florida State University. The authors would like to thank Dr. Tam for suggesting the experiment reported here. The authors would also like to thank Mr. Tony Parrott and Mr. Mike Jones of NASA Langley Research Center for their support of this work.

Note that this report is one of five separate volumes prepared to document the work conducted by GTRI under NASA Grant NAG1-1734. The GTRI report numbers, authors, and titles of each report are listed in the table below:

<b>GTRI Report Number</b>	<b>Authors</b>	<b>Title</b>
A5004/2000-1	Ahuja, K. K. and Gaeta, R. J.	Active Control of Liner Impedance by Varying Perforate Orifice Geometry
A5004/2000-2	Ahuja, K. K., Munro, S. E. and Gaeta, R. J.	Flow Duct Data for Validation of Acoustic Liner Codes for Impedance Reduction
A5004/2000-3	Ahuja, K. K., Gaeta, R. J. and D'Agostino, M. S.	High Amplitude Acoustic Behavior of a Slit-Orifice backed by a Cavity
A5004/2000-4	Ahuja, K. K., Gaeta, R. J. and D'Agostino, M. S.	Acoustic Absorption Characteristics of an Orifice With a Mean Bias Flow
A5004/2000-5	Ahuja, K. K., Cataldi, P. and Gaeta, R. J.	Sound Absorption of a 2DOF Resonant Liner with Negative Bias Flow

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## **Executive Summary**

The objective of the study reported here was to acquire detailed acoustic data and limited and flow visualization data for numerical validation a new model of sound absorption by a very narrow rectangular slit backed by a cavity. The sound absorption model is being developed by Dr. C. K. W. Tam of Florida State University. This report documents normal incidence impedance measurements of a singular rectangular slit orifice with no mean flow. All impedance measurements are made within a 1.12 inch (28.5 mm) diameter impedance tube using the two-microphone method for several frequencies in the range 1000 –6000Hz and incident sound pressure levels in the range 130 – 150 dB. In the interest of leaving the analysis of the data to the developers of more advanced analytical and computational models of sound absorption by narrow slits, we have refrained from giving our own explanations of the observed results, although many of the observed results can be explained using the classical explanations of sound absorption by orifices.

## **1.0 Introduction**

The state of computational aeroacoustics has progressed to the point where direct numerical simulation (DNS) of acoustic liner performance is imminent. Dr. Chris Tam of Florida State University has developed a DNS aeroacoustics code to examine sound absorbing properties of orifices with a backing cavity<sup>1</sup>. In an effort to help validate his model, GTRI has conducted an experiment that measures the impedance of a slit-orifice with a backing cavity for several frequencies and incident sound pressure levels. Furthermore, flow visualization using a Particle Imaging Velocimeter was obtained of the acoustic interaction with the slit-orifice cavity which allowed for qualitative assessment of the slit acoustic behavior. This report documents these impedance and flow visualization experiments.

## **2.0 Experimental Approach and Facilities**

The numerical model of Dr. Tam<sup>1</sup> is two-dimensional, and employed a 0.032 inch (0.8 mm) wide slit covering a rectangular cavity whose depth was equal to the quarter-wavelength of a 3000 Hz acoustic wave (2.88 cm). Experiments conducted at GTRI used a normal incidence impedance tube with a circular cross section. With these differences noted, Figure 1 shows the set-up of the GTRI experiments. The controlled variables in this experiment were acoustic frequency and amplitude. Table I shows the test conditions covered in the present study. It should be noted that 5000 Hz was not examined as a high enough amplitude could not be attained with our driver-impedance tube system. For each case, the reflection coefficient, absorption coefficient, and acoustic impedance were measured.

Frequency [Hz]	Incident Amplitude [dB]
1000	130, 150
2000	130, 150
3000	130, 150
4000	130, 150
6000	130, 150

Table I. Test conditions for slit-orifice with backing cavity.

Investigation of the fluid motion caused by the impinging sound wave near the slit-orifice was performed using an acrylic tube of nominally the same dimensions as the steel impedance tube shown in Figure 1. Using a Particle Image Velocimeter (PIV), a laser sheet was introduced across the width of the slit-orifice and cavity, illuminating incense smoke that was allowed to fill the tube before the driver was turned on. For 1000 Hz and 3000 Hz, images were obtained which allow visualization of the instantaneous fluid in motion at both 130 dB and 150 dB. This allowed visualization of vortex formation downstream of the slit when it took place.

### **2.1 Normal Incidence Impedance Tube**

The normal incidence acoustic impedance was measured in a steel impedance tube that operates using the Two Microphone Method as originally described by Chung and Blaser<sup>2</sup>. The general specifications of the impedance tube are detailed in reference 3. The tube's inner diameter is 1.12 inches.(28.5 mm) and an orifice plate containing the slit-orifice was placed between flanges on the impedance tube at the measurement reference plane. A high intensity acoustic driver was used to produce sinusoidal incident acoustic waves upon the slit orifice. Figure 2 shows the actual slit-orifice plate used in the experiments.

## **2.2 Normal Incidence Acoustic Flow Visualization Apparatus**

GTRI uses a state-of-the-art TSI Power View PIV system. This system incorporates a high resolution, 30 frames per second CCD camera, dual-YAG lasers, and a Laser Pulse Light Arm for delivery of the laser beam. A clear acrylic tube was attached to an acoustic driver at one end and a slit-orifice with backing cavity at the other end. Dimensions of this apparatus were chosen to simulate the steel impedance tube configuration alluded to above. Indeed the same acoustic driver model was used and the same orifice plate was used. Driver voltages used in the impedance tube experiments were input to simulate the same conditions for the flow visualization apparatus. Figure 3 shows a schematic of this apparatus and its “field of view.”

## **3.0 Data Acquisition and Reduction**

Acoustic impedance was determined using acoustic measurements from two microphones that were flush mounted near the reference plane where the orifice was placed (see Figure 1). The cross-spectra data from these signals were processed with an HP 3667A Signal Analyzer and then used in the Chung and Blaser<sup>2</sup> algorithm for the Two Microphone Method processed on a Pentium II platform. A sinusoidal input from a function generator was supplied to the JBL acoustic driver via a Carvin Amplifier. The amplitude of the discrete tone was fixed at constant sound pressure level obtained from the flush-mounted microphone closest to the orifice (microphone number 2 in Figure 1). These levels were nominally 130 dB and 150 dB. It took several iterations before finding the correct driver voltage that produced the desired sound pressure level, but once found, the voltage was matched for all subsequent runs to produce a given amplitude of sound. The incident amplitude was extracted from the measured impedance via the method outlined in Chung and Blaser<sup>2</sup>. Data from the microphones were analyzed from 0 – 6400 Hz with a bandwidth of 4 Hz and 64 averages.

## **4.0 Results**

### **4.1 Incident Sound Pressure Level Spectra**

Sound pressure level (SPL) as a function of spectra were obtained and are provided in Appendix A for use in computational models. Figure 4a and 4b show typical spectra of incident SPL for a 3000 Hz input signal for nominal amplitudes of 130 dB and 150 dB, respectively. Note that for both of these amplitudes, relatively strong harmonics exist. However, the first harmonic for the 150 dB case is almost 20 dB lower than the fundamental. For comparison purposes, the acoustic impedance was measured for an incident broadband noise signal of an average value of about 85 dB at all frequencies up to 6 kHz. Figure 5 shows the incident broadband noise spectrum for this case. The impedance resulting from this broadband incident spectrum can be considered the “linear” response of the slit-orifice-cavity.

## 4.2 Absorption Coefficient Data

The absorption coefficient was calculated from the measured reflection coefficient using the relationship:

$$\alpha = 1 - |R|^2$$

where the complex Reflection coefficient, R, is expressed as a function of the complex normalized impedance, Z, as:

$$R = \frac{z - 1}{z + 1}$$

Figure 6 shows the absorption coefficient for the slit-orifice with backing cavity as a function of frequency and two magnitudes of incident sinusoidal tones: 130 and 150 dB. For comparison, the absorption coefficient for the low level incident broadband noise signal is also included. Note that the broadband data shows a relative peak absorption near 1086 Hz, with another peak near 6200 Hz. The latter peak corresponds to the anti-resonance condition where the reactance and resistance are near optimal for absorption. The peak at 1086 Hz corresponds approximately to the Helmholtz resonator frequency. Following Ingard's formulation<sup>4</sup> for the end correction of a rectangular orifice, the approximate end correction to be applied for the slit orifice is

$$\delta_{end} = 0.4\sqrt{A_o}$$

which is less than half of its value for a circular orifice in an infinite plane. Thus, using this modified end correction and the appropriate values of orifice area and cavity volume in the classical Helmholtz equation yields a resonance frequency of 1102 Hz. This agrees remarkably well with the measured peak absorption of 1086 Hz.

Figure 6 also shows that the absorption in the vicinity of the Helmholtz resonance frequency increases significantly with increased incident SPL as evidenced by the 130 dB and 150 dB tone results. This is an indication of the nonlinear behavior of the slit-orifice. The fact that the 130 dB data has a higher absorption coefficient than the 150 dB data in the resonance region (~ 1100 Hz) may be due to better impedance matching at 130 dB.

## 4.3 Reflection Coefficient and Impedance Data

Figure 7 shows the reflection coefficient data for the broadband, 130 dB and 150 dB incident level cases. Both magnitude and phase are presented. The magnitude of the reflection coefficient follow trends exhibited by the absorption coefficient due to the relationship defined in equation 1. Figure 8 shows the corresponding impedance, both resistance and reactance are presented. The increased resistance as the incident SPL is increased (see Figure 8a) demonstrates the nonlinear nature of the slit-orifice under increasing incident sound energy. The frequencies at which the normalized reactance vanishes (see Figure 8b) correspond to the peak absorption frequencies of Figure 6.

## 4.4 Flow Visualization

Visualization of the acoustic interaction of the slit-orifice with backing cavity was performed with a PIV apparatus described in Section 2. Figure 9 shows some typical flow patterns of a relatively low and high incident SPLs occurring near the slit-orifice and in the backing cavity. At the lower incident levels (Figure 9a), flow circulation patterns are visible that correspond to patterns that Ingard and Labate<sup>5</sup> first documented many years ago. The incident sound pressure levels in Figure 9a correspond approximately to levels that exist for a broadband signal. At high

incident levels (Figure 9b) clear indications of vortical motion is present, which is indicative of high fluctuating velocity in the orifice, thus producing vorticity formation at the orifice edges.

Figure 10 shows an instantaneous snapshot of the slit-orifice exposed to an incident sinusoidal acoustic wave of 1000 Hz at 130 dB and 150 dB. It is clear that even at 130 dB, there is a strong vortix that is convecting away from the orifice. A similar vortex can be seen at 150 dB. This suggests that strong acoustic absorption in the form of conversion of acoustic energy into vortical energy is present at these conditions as quantitatively shown in Figure 6.

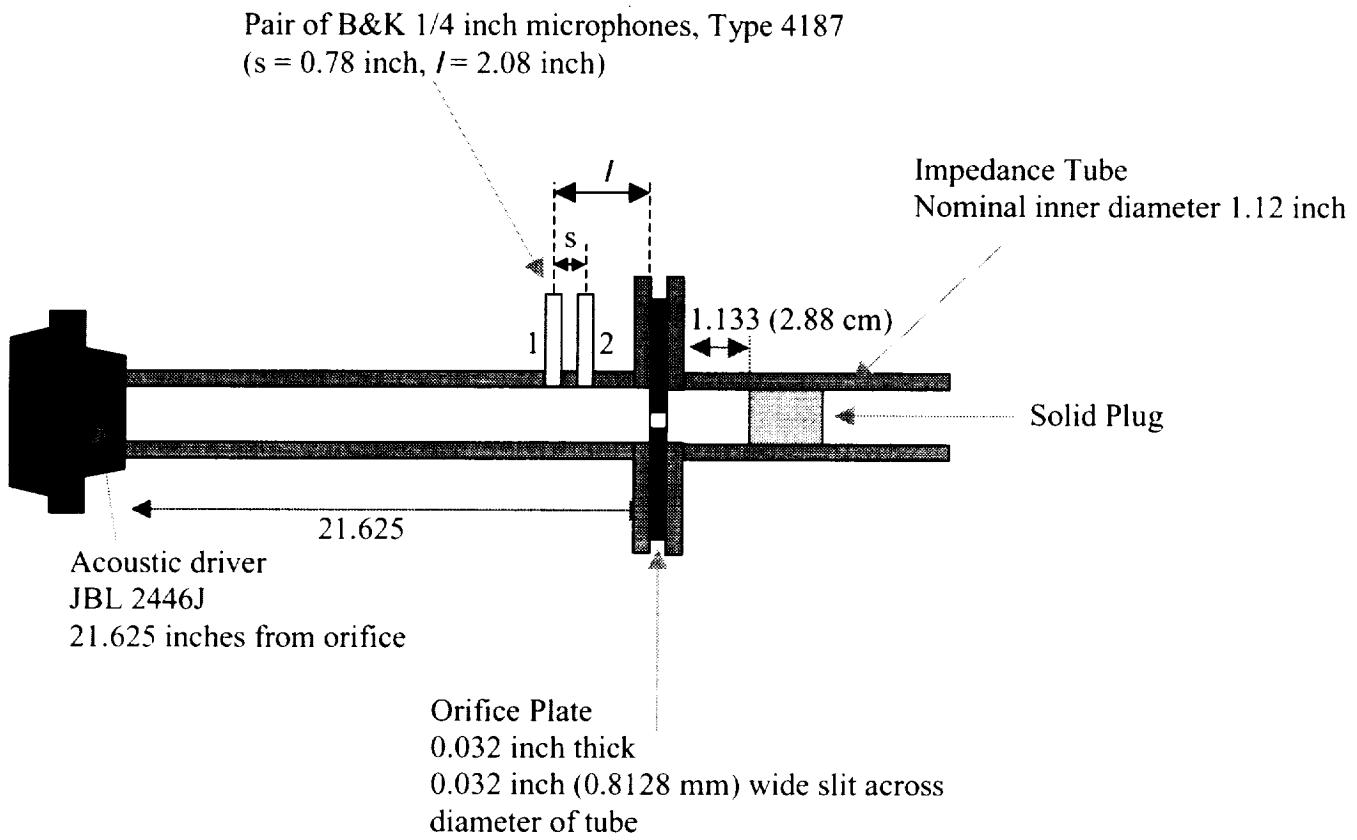
Figure 11 shows an instantaneous snapshot of the slit-orifice exposed to a incident sound wave of 3000 Hz at 130 dB and 150 dB. Note that at 130 dB, the flow patterns look similar to those observed in Figure 9a, i.e., for low incident SPL. This would suggest that not a lot of absorption is taking place via vorticity formation relative to 130 dB at 1000 Hz. This can be shown by comparing Figure 10 and Figure 11 at the 130 dB conditions. Note that the 1000 Hz flow pattern clearly shows a strong vortex at 130 dB while none is present at 3000 Hz. The absorption coefficient data of Figure 6 confirms this. Furthermore, at 3000 Hz and 150 dB, a vortex is present, again suggesting an increase in acoustic absorption. This is also shown in the absorption coefficient data when comparing the 130 dB and 150 dB cases at 3000 Hz.

## 5.0 Concluding Comments

Note that the purpose of acquiring the data presented here was to provide it to Dr. Tam for validating the numerical model of sound absorption by a narrow rectangular slit orifice with a backing cavity being developed by him. The data has been provided to him and NASA Langley Technical monitor for use by others. We understand that Dr. Tams model predicts most of our findings. A joint paper will be presented in a future conference to discuss this comparison.

## **6.0      References**

1. Tam, C. and Kurbatskii, K. *Micro-Fluid Dynamics and Acoustics of Resonant Liners* AIAA Paper No. 99-1850, Presented at the 5<sup>th</sup> AIAA/CEAS Aeroacoustics Conference, May 10-12, Seattle, WA., 1998.
2. Chung, J. Y. and Blaser, D. A. *Transfer Function Method of Measuring In-Duct Acoustic Properties: I. Theory* Journal of the Acoustic Society of America, Volume 68, No. 3, Sept., 1980.
3. Gaeta, R. J. *Liner Impedance Modification by Varying Perforate Orifice Geometry* Ph.D. Thesis, Georgia Institute of Technology, 1998.
4. Ingard, U. *On the Theory and Design of Acoustic Resonators* Journal of the Acoustical Society of America, Volume 25, No. 6 , November, 1953.
5. Ingard, U. and Labate, S. *Acoustic Circulation Effects and the Nonlinear Impedance of Orifices* Journal of the Acoustical Society of America, Vol. 22, No. 2, March, 1950.



### All Dimensions in Inches

Figure 1. Experimental set-up of GTRI impedance tube with slit-orifice cavity.

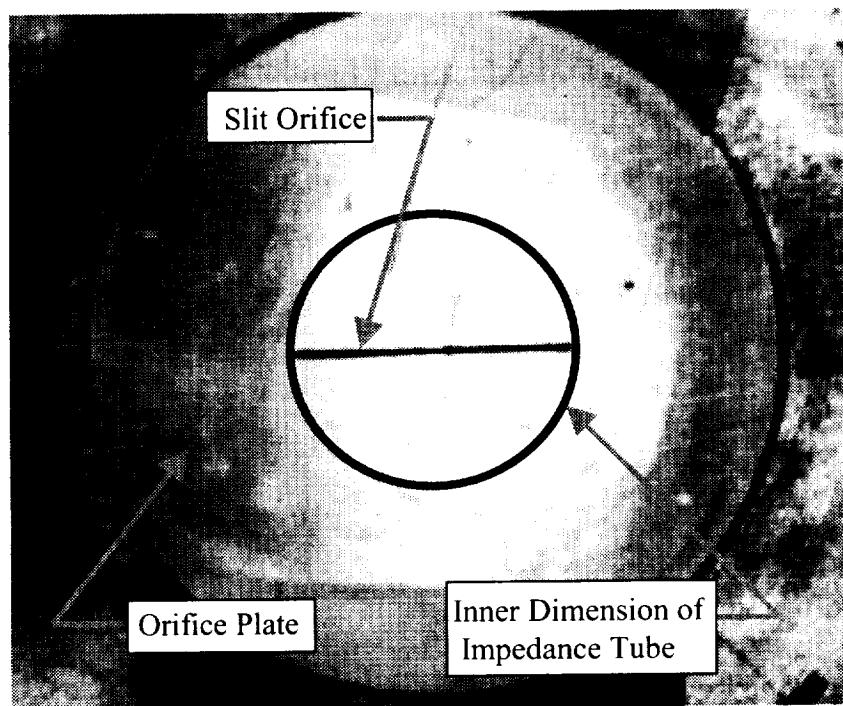


Figure 2. Slit-Orifice used with backing cavity for high amplitude impedance experiments.

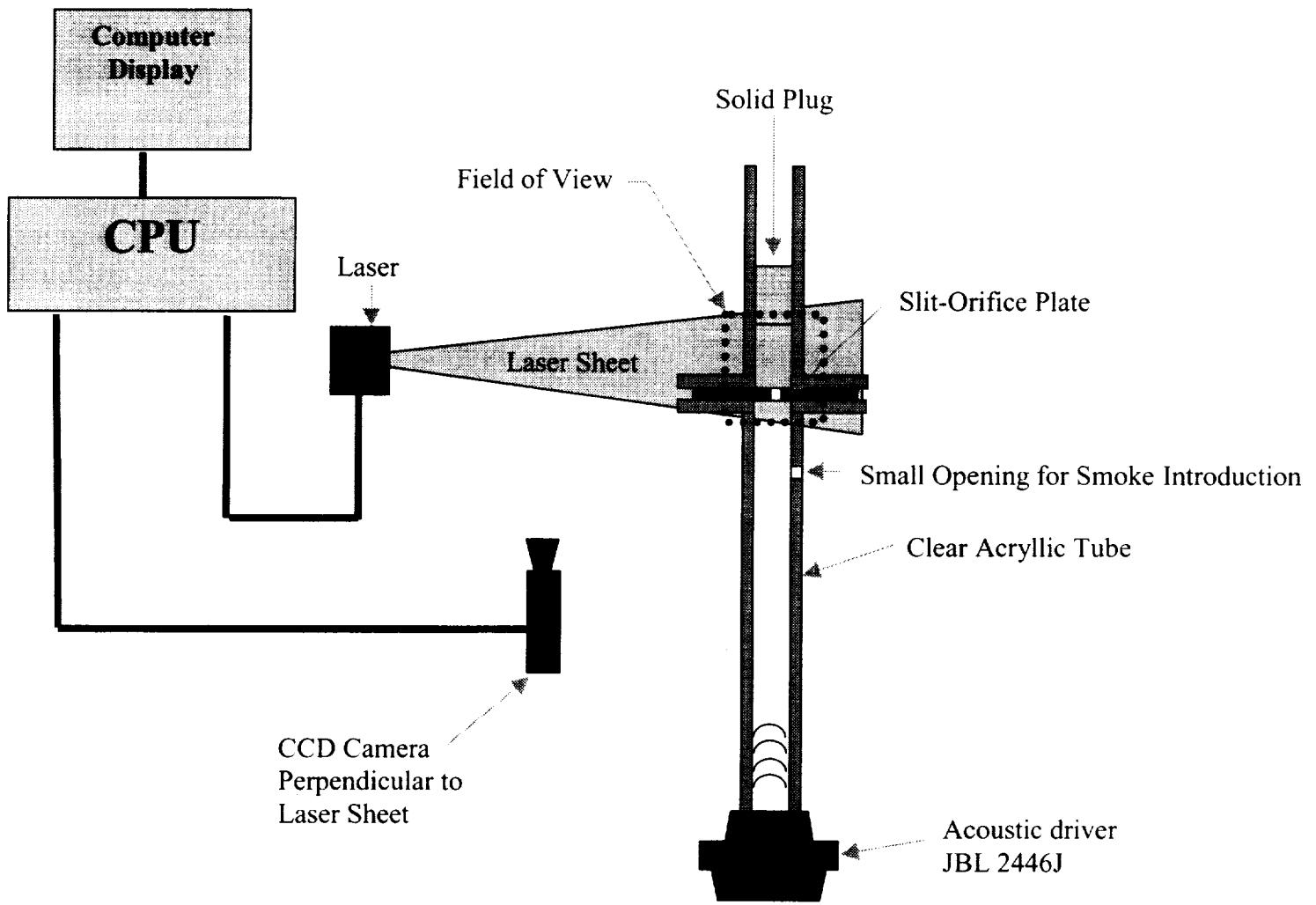
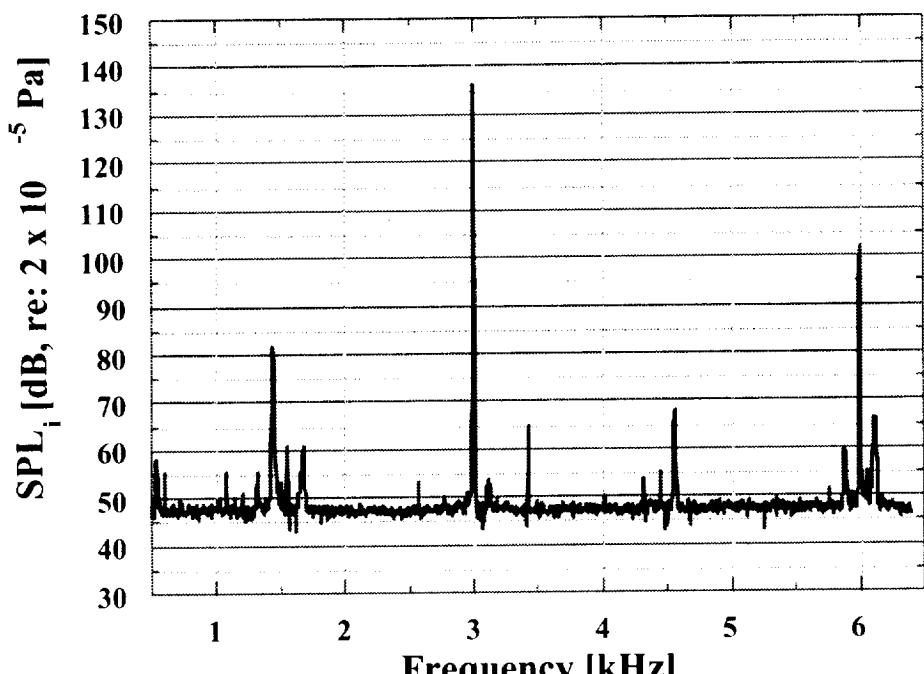
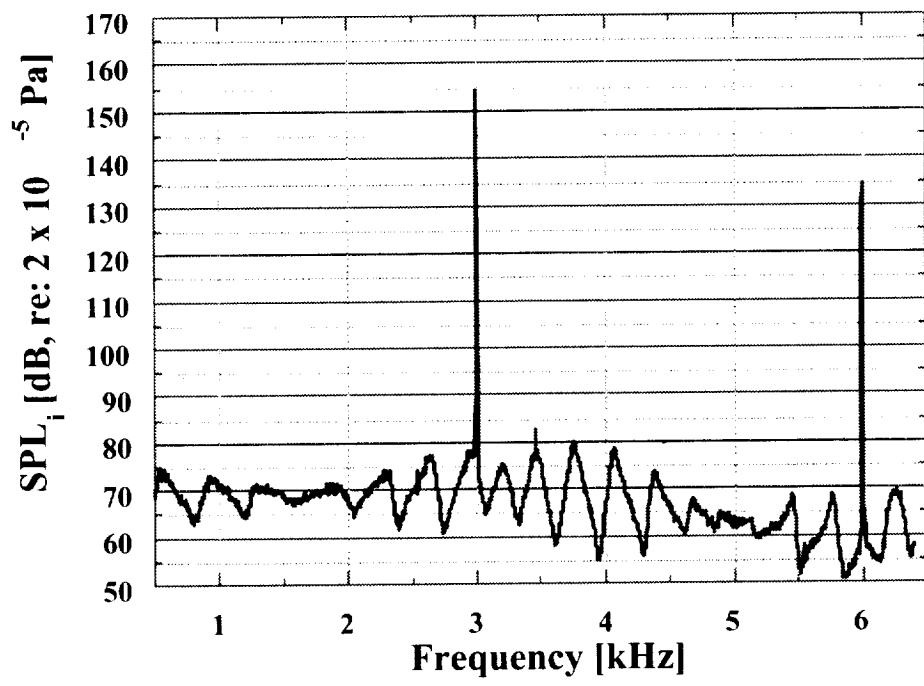


Figure 3. Experimental set-up of acoustic flow visualization apparatus.



a. Nominal 130 dB



b. Nominal 150 dB

Figure 4. Typical incident SPL spectra obtained for slit-orifice with backing cavity  
 [0-6400 Hz;  $\Delta f = 4$  Hz; 64 avg.s.]

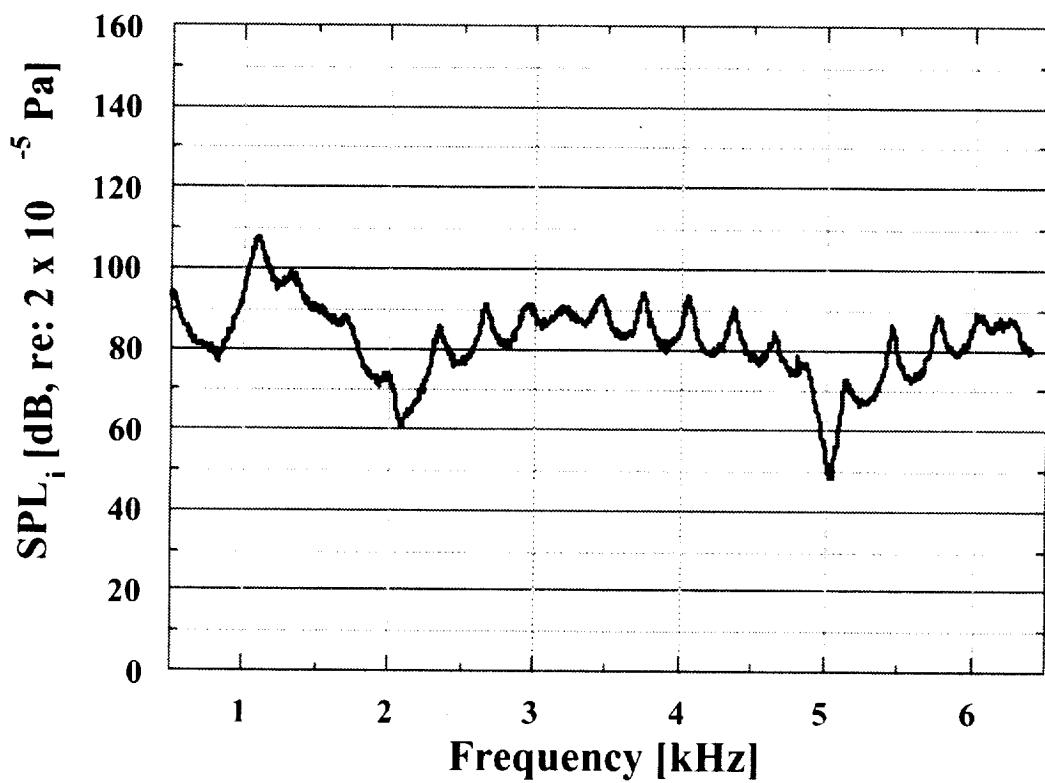


Figure 5. Incident SPL spectrum for broadband noise incident to slit-orifice with backing cavity  
[0-6400 Hz;  $\Delta f = 4$  Hz; 64 avgs.]

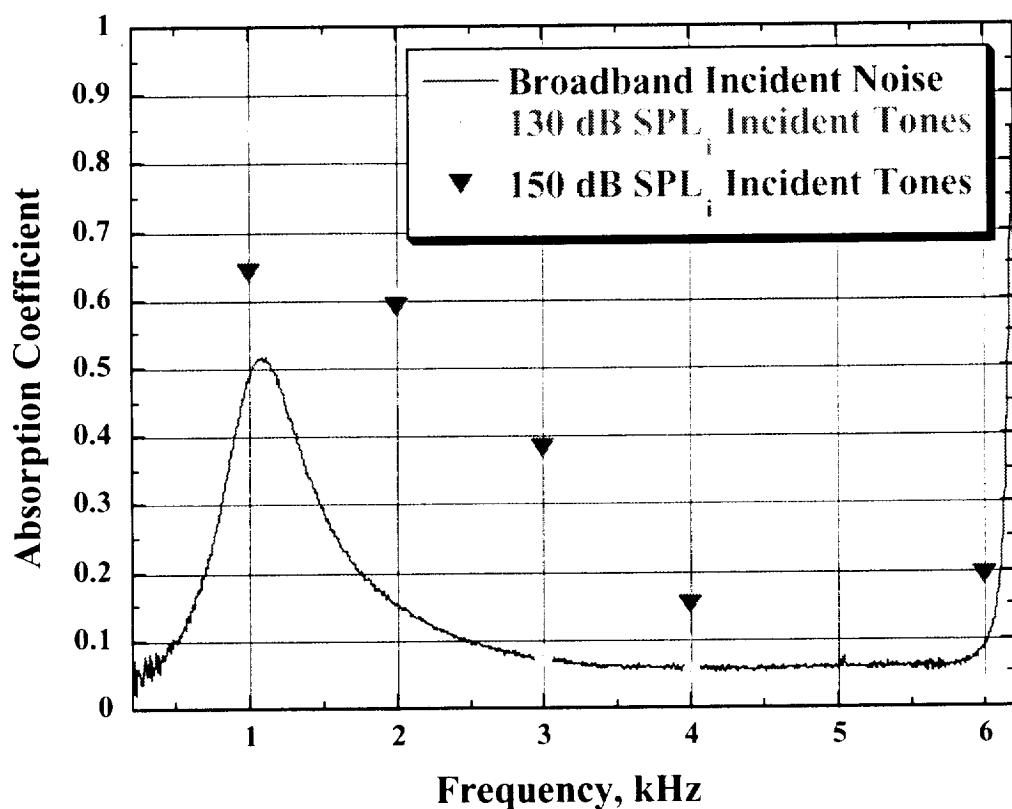
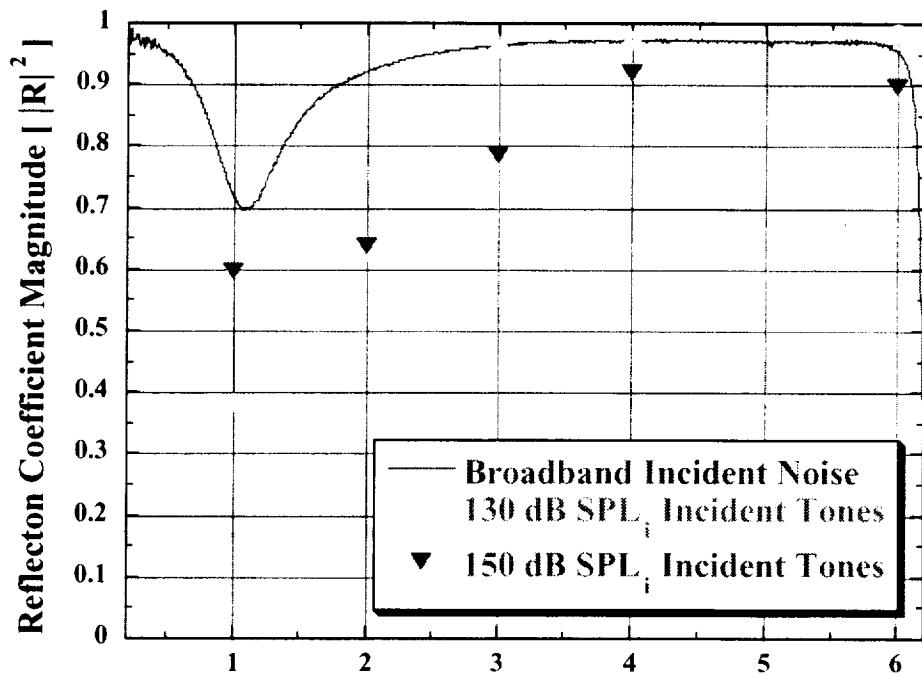
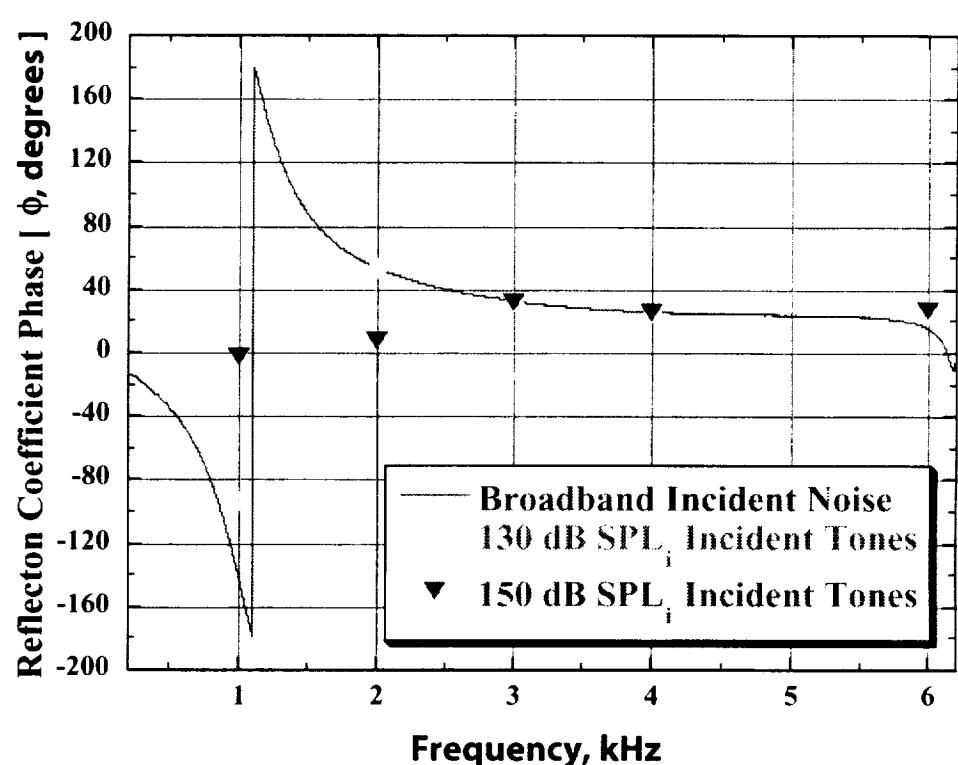


Figure 6. Absorption coefficient for slit-orifice with backing cavity for broadband and single tone input.

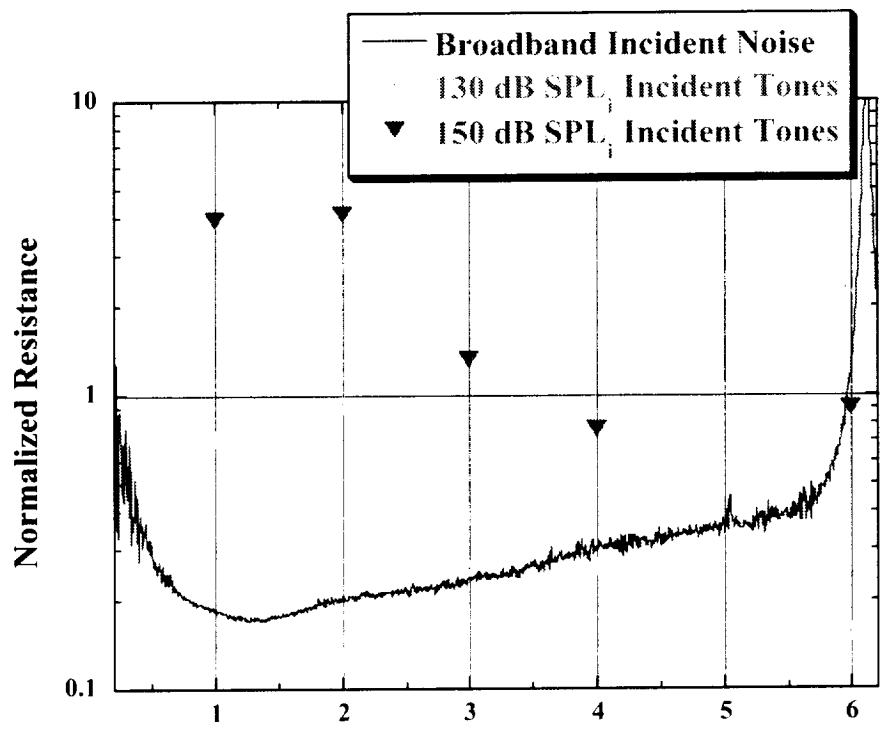


**a. Magnitude**

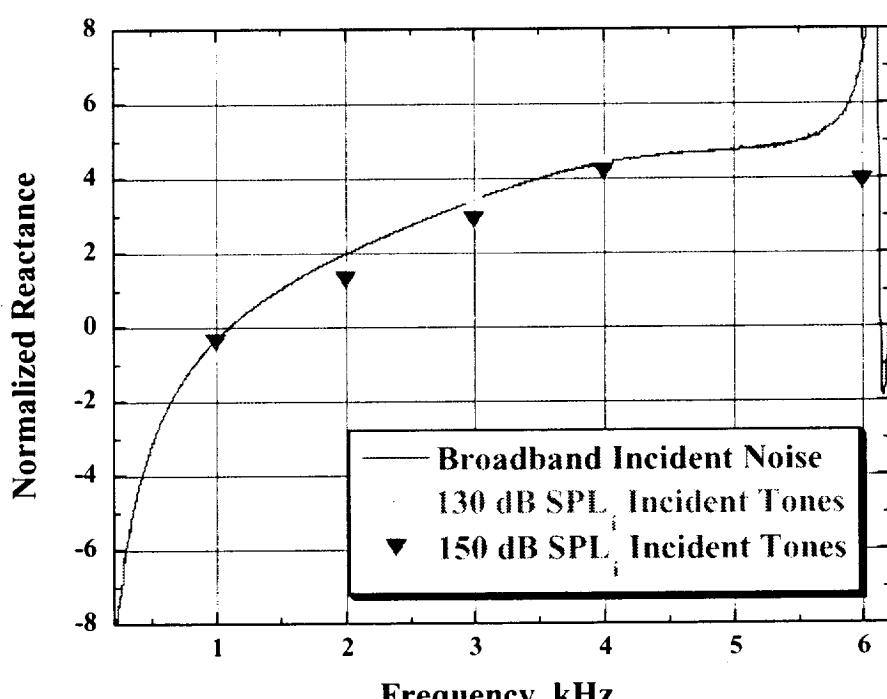


**b. Phase**

Figure 7. Reflection coefficient of slit-orifice with backing cavity for broadband and tone incident SPL.

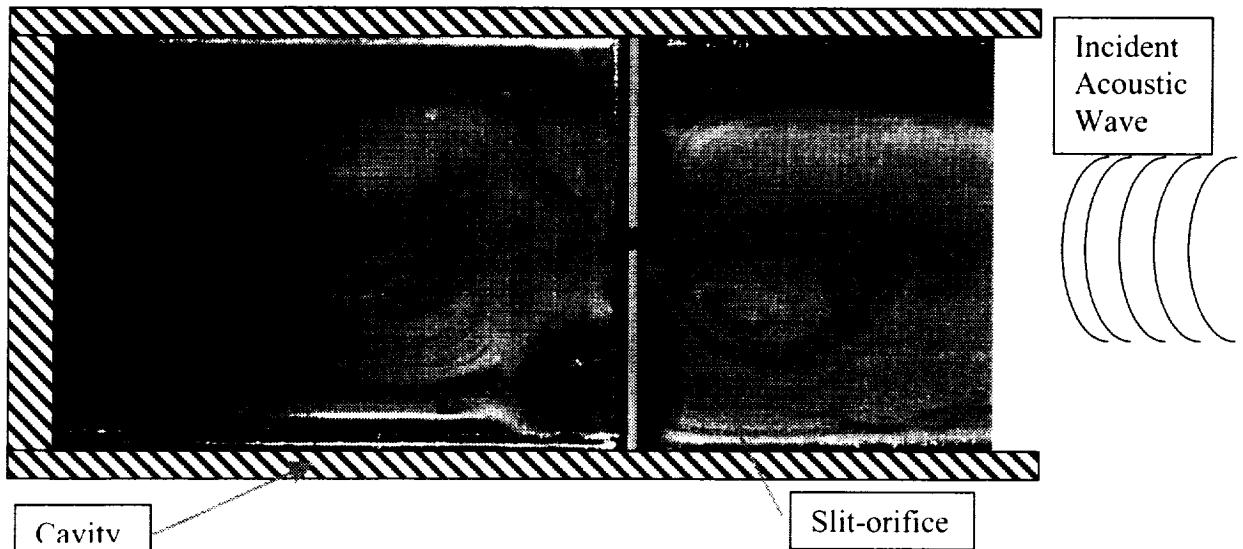


a. Normalized Resistance



b. Normalized Reactance

Figure 8. Normalized impedance of slit-orifice with backing cavity for broadband and tone incident SPL.



a. A typical flow pattern at a relatively low incident SPL



b. A typical flow pattern at a relatively high incident SPL

Figure 9. Flow patterns for acoustic-orifice interactions: instantaneous visualization from PIV images.

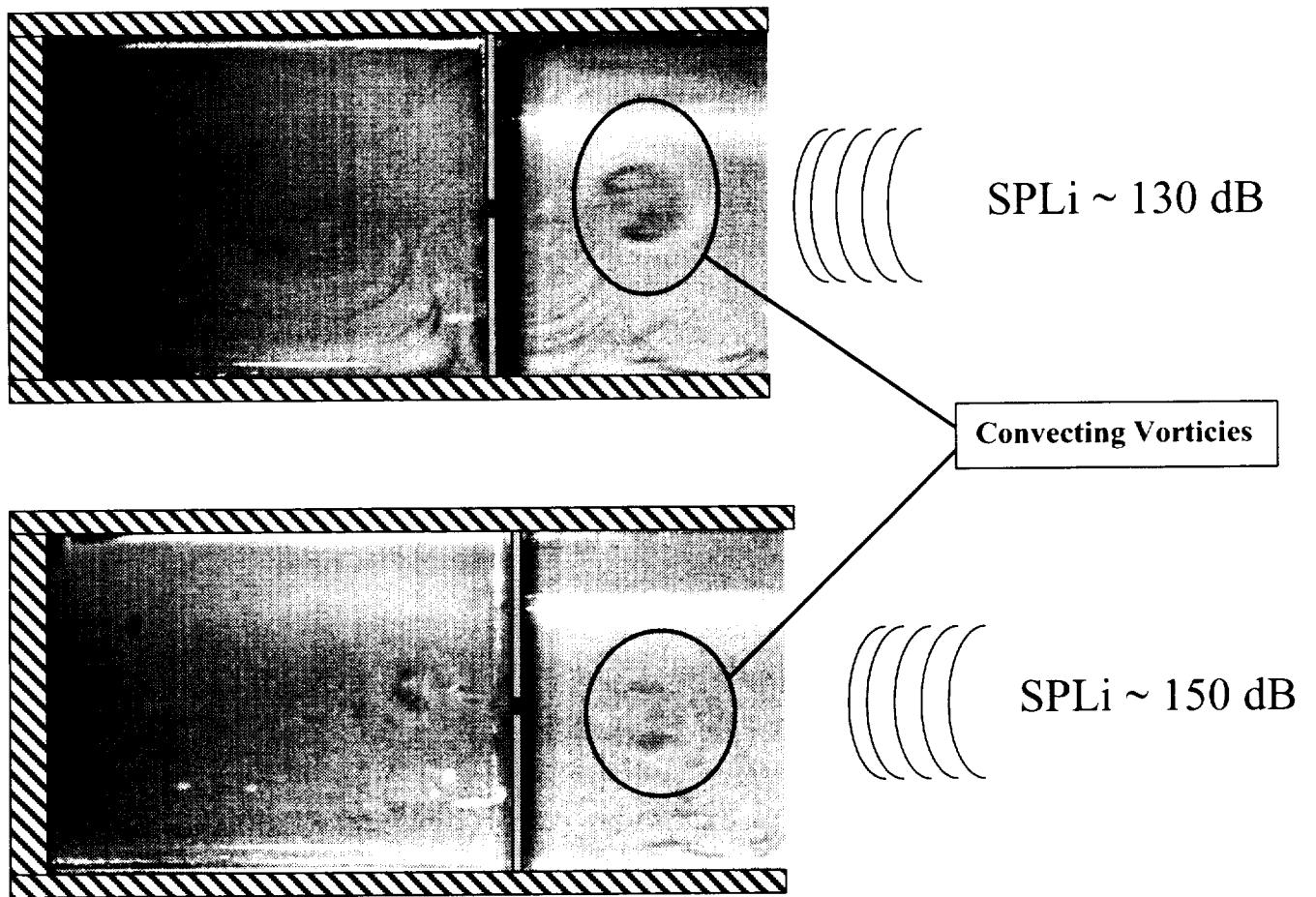
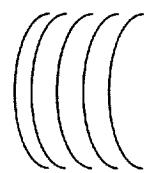
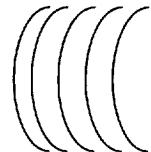
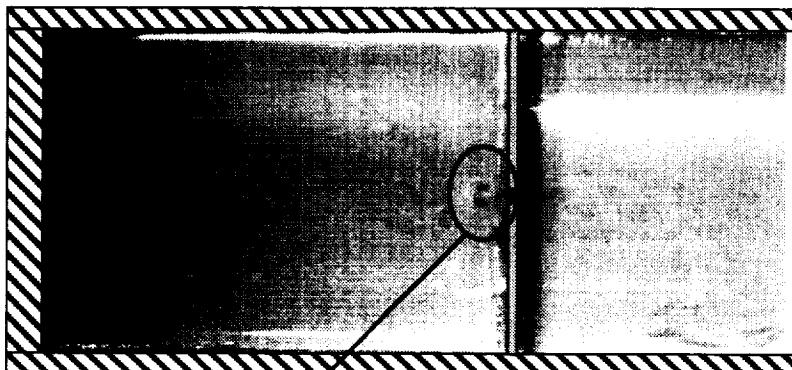


Figure 10. Flow visualization of a 1000 Hz acoustic wave incident upon a slit-orifice with backing cavity.



SPL<sub>i</sub> ~ 130 dB



SPL<sub>i</sub> ~ 150 dB

**Convection Vortice**

Figure 11. Flow visualization of a 3000 Hz acoustic wave incident upon a slit-orifice with backing cavity.

## **Appendix A**

**Tabulated Acoustic Reflection/Absorption Coefficients and Impedance for  
Tone Inputs at 1, 2, 3, 4, and 6 kHz**

SPLi = 130 dB

Freq. [kHz]	Absorp.	Ref. [Mag.]	Ref. [Phase]	R/ρc	χ/ρc
1.0000	0.85120	0.38570	-93.601	0.71100	-0.64310
2.0000	0.60440	0.62900	53.498	0.93360	1.5622
3.0000	0.078500	0.95990	32.646	0.25750	3.3967
4.0000	0.050300	0.97450	25.697	0.25990	4.3696
6.0000	0.027300	0.98620	24.398	0.15510	4.6205

SPLi = 150 dB

Freq. [kHz]	Absorp.	Ref. [Mag.]	Ref. [Phase]	R/ρc	χ/ρc
1.0000	0.64250	0.59790	-3.0437	3.9331	-0.38870
2.0000	0.59120	0.63940	8.4033	4.1120	1.2998
3.0000	0.38240	0.78590	32.373	1.3180	2.9007
4.0000	0.15140	0.92120	26.232	0.77290	4.1557
6.0000	0.19220	0.89880	27.422	0.90560	3.9008

## **Appendix B**

### **Tabulated Incident Sound Pressure Levels**

## SPLi [Nominal 130 dB Spectra]

Freq. [kHz] [kHz]	1 kHz [dB]	2 kHz [dB]	3 kHz [dB]	4 kHz [dB]	6 kHz [dB]
0.0040000	83.310	95.030	96.330	96.920	97.190
0.0080000	63.170	65.320	57.470	56.840	56.650
0.012000	61.960	64.210	54.770	54.720	54.770
0.016000	59.520	62.750	48.760	49.440	48.670
0.020000	58.420	60.790	47.860	48.130	48.420
0.024000	57.310	59.600	47.870	49.050	47.840
0.028000	55.730	58.670	47.700	47.920	48.000
0.032000	54.460	57.340	47.230	47.760	48.800
0.036000	53.430	56.600	46.260	47.350	48.440
0.040000	52.250	55.780	46.730	47.290	47.650
0.044000	51.790	54.860	46.890	47.530	47.350
0.048000	51.380	54.400	47.890	46.880	46.840
0.052000	50.620	53.830	47.440	47.110	46.480
0.056000	51.030	54.080	50.810	50.570	53.160
0.060000	55.310	55.730	54.630	54.730	57.940
0.064000	51.920	53.050	50.150	50.240	52.770
0.068000	48.650	51.370	46.020	47.590	47.680
0.072000	48.050	51.620	48.120	47.980	48.470
0.076000	50.120	52.630	48.580	49.090	48.480
0.080000	50.870	53.100	49.130	50.590	48.040
0.084000	49.070	49.900	47.300	48.030	47.600
0.088000	47.990	50.050	47.300	47.620	47.610
0.092000	47.410	49.320	46.910	47.590	47.990
0.096000	47.070	49.950	46.870	47.110	47.800
0.10000	47.160	49.670	47.720	47.500	46.650
0.10400	47.880	50.530	47.350	46.560	46.450
0.10800	47.710	50.750	46.370	47.510	46.410
0.11200	48.420	51.070	46.800	47.590	46.600
0.11600	48.840	52.230	48.140	47.820	46.970
0.12000	50.660	52.810	50.080	48.890	47.940
0.12400	48.780	51.090	49.160	48.080	47.380
0.12800	46.450	51.580	47.900	47.830	47.030
0.13200	48.330	52.060	48.370	46.670	47.360
0.13600	48.790	52.490	48.530	46.300	46.600
0.14000	47.740	52.500	47.380	47.560	46.670
0.14400	48.130	52.860	46.770	47.940	46.300
0.14800	48.000	53.330	46.850	47.680	47.270
0.15200	48.850	54.110	46.750	47.010	47.410
0.15600	49.730	54.790	47.740	48.570	46.760
0.16000	49.900	54.950	47.390	48.080	47.200
0.16400	48.830	55.110	47.730	48.230	46.380
0.16800	49.430	55.810	47.610	47.860	46.450
0.17200	49.460	56.400	47.040	47.640	46.870
0.17600	50.660	56.950	49.170	49.470	47.410
0.18000	53.490	58.000	51.610	52.810	47.990
0.18400	51.620	57.690	48.710	49.430	47.360
0.18800	50.970	57.530	47.400	46.770	47.080
0.19200	51.420	58.660	47.220	46.630	47.600
0.19600	51.480	59.810	47.160	46.850	46.690
0.20000	52.260	61.030	47.860	47.750	46.970
0.20400	52.820	60.560	46.760	47.780	46.840
0.20800	52.180	61.290	47.520	47.710	47.420
0.21200	53.060	61.970	46.640	47.280	47.990
0.21600	54.270	63.220	47.240	47.300	47.140

0.22000	54.210	63.050	48.150	48.510	47.720
0.22400	54.710	62.860	47.220	47.890	47.060
0.22800	55.230	63.800	47.240	46.970	47.470
0.23200	56.290	63.740	49.950	49.830	47.830
0.23600	58.650	67.930	58.500	58.680	51.320
0.24000	62.190	69.460	63.460	61.130	52.600
0.24400	58.940	65.160	56.860	57.340	49.940
0.24800	55.920	66.000	47.810	47.330	46.930
0.25200	54.320	64.030	48.350	47.250	47.710
0.25600	53.990	63.950	47.250	46.730	47.780
0.26000	56.740	63.600	47.610	45.590	47.670
0.26400	55.110	63.880	47.180	45.610	47.130
0.26800	57.260	63.590	46.420	46.280	47.580
0.27200	53.920	62.310	47.050	47.640	48.160
0.27600	53.360	62.480	45.930	47.750	47.830
0.28000	53.840	63.270	47.070	48.260	47.580
0.28400	52.420	62.320	47.830	47.610	47.360
0.28800	53.020	61.700	48.090	47.110	46.720
0.29200	52.590	61.650	47.960	47.430	47.020
0.29600	51.910	61.580	49.520	49.570	48.170
0.30000	56.510	61.620	53.280	53.050	48.490
0.30400	51.790	59.660	49.460	48.690	47.930
0.30800	51.010	60.210	46.150	47.710	46.150
0.31200	51.790	60.770	47.050	47.120	47.440
0.31600	50.540	60.760	47.470	45.980	47.240
0.32000	50.260	60.410	47.170	46.900	47.090
0.32400	52.000	60.360	47.000	46.760	46.790
0.32800	50.640	59.050	46.830	47.450	47.160
0.33200	51.530	58.850	46.930	47.620	47.490
0.33600	50.240	58.920	47.380	47.580	47.840
0.34000	49.950	58.270	46.940	47.690	47.850
0.34400	51.240	57.400	46.940	47.020	46.570
0.34800	50.570	57.120	46.430	46.830	46.360
0.35200	49.620	57.040	46.630	47.780	47.370
0.35600	54.170	58.260	52.470	52.770	49.220
0.36000	58.590	60.090	57.720	56.610	49.300
0.36400	53.710	58.060	52.020	52.450	48.120
0.36800	49.170	57.600	47.540	46.380	46.460
0.37200	48.870	56.450	46.530	46.280	47.600
0.37600	49.010	55.490	45.670	46.990	47.180
0.38000	49.470	55.450	46.750	47.590	46.580
0.38400	48.770	55.490	47.370	48.480	47.630
0.38800	49.390	55.410	46.780	47.960	47.880
0.39200	50.000	54.940	49.360	48.780	47.210
0.39600	50.030	54.940	50.360	50.730	47.250
0.40000	47.960	54.820	47.610	47.730	47.410
0.40400	48.390	54.220	46.890	47.840	47.060
0.40800	49.030	54.030	45.630	47.570	47.520
0.41200	47.610	54.550	47.400	47.880	47.130
0.41600	51.280	55.680	49.570	50.990	47.770
0.42000	55.360	58.070	52.730	55.900	47.750
0.42400	51.950	55.090	50.480	50.080	47.790
0.42800	48.740	53.650	46.980	48.080	47.580
0.43200	48.060	54.650	47.030	46.760	47.690
0.43600	47.780	54.660	47.210	46.350	46.650
0.44000	48.760	55.880	47.280	46.530	45.850
0.44400	50.000	56.060	47.300	46.170	46.860

0.44800	50.220	55.400	46.770	47.510	47.290
0.45200	49.510	56.400	46.150	47.260	47.880
0.45600	50.230	57.270	47.120	46.830	48.090
0.46000	51.080	57.740	46.160	47.060	47.380
0.46400	51.560	58.260	46.350	47.370	47.530
0.46800	51.590	58.750	47.060	47.790	46.680
0.47200	52.210	58.590	46.370	48.260	46.900
0.47600	51.880	60.450	57.940	56.530	51.150
0.48000	63.870	62.950	63.850	64.420	54.150
0.48400	56.740	62.820	58.790	58.080	50.000
0.48800	54.220	62.380	47.280	46.830	48.300
0.49200	56.060	62.700	47.830	47.390	47.530
0.49600	57.040	62.840	48.610	46.800	47.170
0.50000	57.110	64.390	47.480	47.160	47.490
0.50400	57.850	65.700	46.250	46.970	47.050
0.50800	59.450	66.010	47.330	46.850	48.220
0.51200	58.300	66.060	47.180	47.020	47.610
0.51600	58.640	66.540	46.160	46.890	46.600
0.52000	59.280	66.000	46.720	46.930	47.480
0.52400	59.610	66.770	47.850	46.710	48.450
0.52800	59.400	67.560	48.380	47.010	46.890
0.53200	59.870	67.800	48.140	47.650	47.550
0.53600	60.950	67.770	53.810	55.000	52.530
0.54000	61.400	68.690	58.140	60.240	55.560
0.54400	61.830	68.450	52.750	54.480	50.440
0.54800	68.830	68.370	48.100	48.660	46.930
0.55200	67.970	68.400	52.340	53.890	47.240
0.55600	59.610	68.340	50.820	48.680	48.640
0.56000	59.020	67.550	47.250	46.750	48.230
0.56400	59.240	67.000	47.660	48.020	47.490
0.56800	58.990	66.650	47.230	47.930	47.370
0.57200	58.560	66.330	47.820	48.010	46.760
0.57600	58.370	66.830	46.640	47.720	46.890
0.58000	55.780	66.980	47.220	48.220	46.400
0.58400	57.610	66.760	47.520	47.590	47.430
0.58800	58.230	66.400	48.140	48.160	47.600
0.59200	58.080	65.380	47.180	47.280	46.790
0.59600	57.970	66.200	51.440	47.130	49.230
0.60000	59.180	67.230	55.550	57.300	50.380
0.60400	59.830	66.690	47.640	51.740	48.120
0.60800	58.080	65.310	47.830	46.960	46.890
0.61200	58.350	64.480	47.710	46.760	47.090
0.61600	58.230	64.270	47.090	47.600	47.220
0.62000	59.270	64.520	46.580	47.610	47.180
0.62400	58.750	64.540	47.330	47.320	47.900
0.62800	58.030	64.710	47.260	47.840	46.070
0.63200	57.260	64.410	46.830	47.250	46.540
0.63600	57.250	63.960	46.720	46.720	48.420
0.64000	58.020	64.100	47.480	46.020	47.000
0.64400	58.080	63.520	46.580	47.650	46.650
0.64800	58.000	62.920	47.740	47.600	47.440
0.65200	57.740	63.240	48.090	47.690	47.660
0.65600	58.310	63.310	47.390	48.150	47.680
0.66000	58.490	63.420	48.750	48.970	46.980
0.66400	58.510	63.670	47.870	46.930	47.160
0.66800	58.230	62.830	47.670	46.830	46.540
0.67200	58.640	62.740	46.350	46.770	45.930

0.67600	58.490	62.840	47.690	47.120	46.930
0.68000	59.500	63.640	47.750	47.280	47.130
0.68400	59.490	63.310	48.060	47.390	46.830
0.68800	58.850	62.530	47.640	47.140	46.690
0.69200	58.620	62.780	47.660	47.610	47.360
0.69600	58.870	62.820	46.190	47.820	48.010
0.70000	58.640	62.810	46.680	46.830	47.480
0.70400	58.640	62.430	46.180	45.980	48.010
0.70800	58.890	62.990	47.030	47.150	48.080
0.71200	59.030	62.120	48.710	47.930	46.400
0.71600	58.640	62.460	48.470	49.920	46.890
0.72000	58.910	62.350	49.680	51.400	47.730
0.72400	59.480	61.730	49.410	48.200	47.380
0.72800	58.490	61.220	47.450	47.450	47.030
0.73200	57.340	61.190	47.100	47.350	46.650
0.73600	57.430	61.660	47.270	47.500	46.170
0.74000	58.150	61.050	46.540	47.040	46.960
0.74400	58.290	60.640	46.990	47.650	47.840
0.74800	58.370	61.410	47.370	48.030	47.580
0.75200	57.790	61.310	47.110	47.710	47.570
0.75600	58.460	61.510	46.860	47.800	47.340
0.76000	58.090	60.250	46.320	48.360	47.760
0.76400	57.530	58.820	46.820	48.070	47.630
0.76800	57.890	59.890	46.790	47.050	46.720
0.77200	58.010	59.800	46.890	48.120	46.060
0.77600	57.690	59.710	47.170	47.760	47.060
0.78000	58.100	59.280	47.390	47.900	47.210
0.78400	57.660	59.410	47.820	47.250	47.150
0.78800	57.510	59.960	48.750	47.210	47.870
0.79200	58.300	59.780	47.820	47.540	47.010
0.79600	58.120	59.360	47.730	47.170	47.190
0.80000	57.740	59.270	47.780	47.110	46.960
0.80400	57.280	58.810	48.060	46.200	46.380
0.80800	56.870	58.070	47.930	46.360	46.710
0.81200	57.140	59.420	48.120	47.340	47.850
0.81600	58.130	60.010	46.670	46.490	46.340
0.82000	58.050	59.990	46.090	47.410	47.600
0.82400	59.170	59.950	47.090	47.100	47.740
0.82800	59.230	59.880	47.550	47.910	46.890
0.83200	60.180	60.200	47.220	47.740	46.930
0.83600	60.530	59.610	47.750	47.840	47.190
0.84000	61.210	61.290	48.580	47.720	46.910
0.84400	59.970	61.700	46.930	47.500	47.330
0.84800	60.370	61.230	46.770	46.980	47.050
0.85200	61.010	62.390	46.130	46.550	47.920
0.85600	61.170	63.710	45.830	46.380	47.430
0.86000	60.870	63.340	46.860	47.320	47.980
0.86400	62.350	63.120	47.290	47.810	47.050
0.86800	61.970	63.690	47.630	48.060	47.360
0.87200	61.590	63.100	47.530	46.790	48.580
0.87600	62.120	64.010	47.550	47.310	47.430
0.88000	62.050	64.300	47.190	47.070	47.870
0.88400	62.270	64.440	47.760	45.900	48.400
0.88800	63.540	64.500	47.530	47.080	48.070
0.89200	63.180	64.430	47.330	48.180	47.240
0.89600	63.430	65.580	47.380	48.490	46.700
0.90000	64.310	66.450	48.650	48.010	46.880

0.90400	64.080	66.950	47.520	46.970	47.220
0.90800	64.930	66.940	46.950	46.570	46.710
0.91200	64.510	66.300	47.530	47.240	46.680
0.91600	64.840	65.360	47.320	46.750	46.810
0.92000	65.100	65.980	46.460	48.670	46.770
0.92400	65.610	66.870	47.060	48.390	47.090
0.92800	65.150	66.570	47.770	47.180	46.820
0.93200	64.480	65.480	47.760	46.460	47.100
0.93600	65.090	65.940	47.050	46.700	47.260
0.94000	65.900	66.240	47.050	47.200	47.210
0.94400	65.890	66.890	47.100	47.060	47.100
0.94800	64.470	67.300	48.100	47.680	46.870
0.95200	63.930	67.670	47.200	47.800	46.980
0.95600	65.340	66.930	46.290	48.160	48.610
0.96000	65.420	65.700	48.560	48.940	50.150
0.96400	65.800	66.280	48.050	47.750	47.190
0.96800	64.850	66.620	48.270	47.630	47.380
0.97200	65.380	66.600	47.350	46.940	46.990
0.97600	66.750	66.690	47.830	47.200	46.340
0.98000	65.410	66.780	47.370	47.510	47.750
0.98400	65.670	65.510	48.250	47.400	47.770
0.98800	66.310	65.380	47.910	47.990	47.790
0.99200	69.570	65.550	47.980	47.300	47.200
0.99600	124.92	65.600	47.550	45.290	48.230
1.0000	130.97	66.110	47.380	46.950	47.480
1.0040	124.97	65.980	47.560	46.360	47.410
1.0080	69.850	64.560	47.470	47.890	47.410
1.0120	66.580	64.840	48.280	48.050	46.770
1.0160	67.000	65.230	49.170	49.120	49.810
1.0200	68.020	65.200	49.900	51.100	51.280
1.0240	67.070	65.640	47.550	47.940	47.930
1.0280	65.680	65.670	47.680	47.380	47.100
1.0320	66.090	65.880	47.950	48.080	47.860
1.0360	66.570	66.080	47.180	47.930	47.160
1.0400	66.170	65.180	47.240	47.000	47.920
1.0440	65.920	65.490	48.030	47.100	47.360
1.0480	65.720	65.370	46.390	46.980	46.580
1.0520	65.660	65.090	46.910	47.830	45.370
1.0560	66.570	64.760	47.610	47.880	47.590
1.0600	66.780	64.710	47.870	46.680	47.100
1.0640	65.850	64.630	47.300	46.400	45.800
1.0680	65.410	64.820	47.500	46.410	46.370
1.0720	65.640	65.050	48.230	47.010	46.650
1.0760	66.390	64.500	52.340	51.230	51.410
1.0800	66.410	64.350	55.310	55.920	51.900
1.0840	66.030	64.400	50.850	51.870	48.590
1.0880	65.140	65.160	47.290	46.070	47.070
1.0920	65.340	64.760	47.420	46.570	46.890
1.0960	65.110	63.320	47.270	47.820	46.680
1.1000	65.130	64.120	46.760	46.770	46.000
1.1040	64.770	64.360	46.700	47.840	47.290
1.1080	64.740	63.680	46.160	46.640	47.840
1.1120	65.050	63.690	46.240	46.730	46.830
1.1160	64.230	63.970	48.360	46.600	46.620
1.1200	64.090	63.450	48.970	46.250	46.760
1.1240	64.990	63.890	48.680	47.270	46.530
1.1280	63.320	63.390	48.330	47.300	46.310

1.1320	62.140	63.190	47.800	46.730	48.340
1.1360	62.430	63.180	47.570	48.650	49.970
1.1400	61.960	63.470	50.100	51.690	51.620
1.1440	61.790	62.630	48.390	48.260	48.460
1.1480	61.010	62.320	46.990	46.670	47.970
1.1520	61.280	62.030	47.910	46.920	47.860
1.1560	61.490	61.510	46.190	47.610	48.000
1.1600	60.780	61.750	47.840	48.200	47.210
1.1640	59.570	61.820	47.260	48.660	46.820
1.1680	59.460	60.810	47.530	48.890	47.020
1.1720	58.990	61.410	46.530	48.200	47.080
1.1760	58.300	61.830	46.630	47.320	46.030
1.1800	57.780	62.030	46.430	47.280	46.760
1.1840	57.650	61.650	46.810	48.200	47.970
1.1880	57.390	61.410	47.850	48.010	47.380
1.1920	57.470	60.230	47.140	46.610	47.450
1.1960	57.500	60.800	47.940	46.580	49.970
1.2000	58.250	61.780	51.180	52.400	53.530
1.2040	57.710	61.190	46.080	48.570	48.890
1.2080	58.520	61.710	47.600	46.940	46.950
1.2120	58.760	61.980	47.950	47.440	47.840
1.2160	57.370	61.770	47.650	46.600	47.240
1.2200	57.270	61.260	47.330	47.540	47.150
1.2240	57.950	62.130	46.930	47.560	46.730
1.2280	58.160	61.700	45.380	47.820	47.330
1.2320	58.600	62.380	47.520	47.780	47.960
1.2360	58.840	62.780	47.800	49.060	47.330
1.2400	58.980	62.450	47.670	50.370	48.230
1.2440	58.220	62.260	48.210	50.260	48.100
1.2480	58.960	63.740	47.240	51.820	47.890
1.2520	58.820	64.080	46.260	52.260	48.050
1.2560	59.740	64.040	47.730	54.670	48.260
1.2600	59.740	64.360	45.660	47.390	48.470
1.2640	59.300	64.070	47.570	53.710	46.990
1.2680	59.840	63.870	46.950	54.310	47.550
1.2720	60.070	64.230	47.210	54.320	47.430
1.2760	60.410	64.390	46.930	55.880	46.540
1.2800	61.270	64.640	45.780	55.890	46.410
1.2840	61.070	64.130	45.920	56.640	46.380
1.2880	60.780	64.520	45.940	56.980	46.390
1.2920	61.100	65.780	47.620	57.770	47.350
1.2960	61.120	65.060	48.450	58.580	47.530
1.3000	61.290	65.230	48.050	59.420	48.550
1.3040	62.230	65.150	49.200	60.510	47.650
1.3080	61.980	65.950	50.890	61.190	47.700
1.3120	61.950	66.430	51.660	61.510	47.130
1.3160	62.410	66.060	54.050	62.850	52.060
1.3200	64.090	66.030	55.330	63.070	54.360
1.3240	62.750	65.940	52.540	62.820	48.260
1.3280	62.490	66.880	48.290	64.210	46.880
1.3320	62.440	66.940	48.890	64.360	46.790
1.3360	62.060	67.600	49.160	63.210	46.520
1.3400	62.430	67.230	48.140	62.840	46.590
1.3440	61.870	66.910	48.150	61.760	46.710
1.3480	62.090	66.980	48.570	61.890	47.290
1.3520	62.840	65.790	48.560	61.720	47.430
1.3560	62.940	66.670	47.810	60.100	47.150

1.3600	62.620	67.170	47.430	58.770	46.710
1.3640	62.820	66.640	48.890	58.320	46.320
1.3680	62.320	67.310	48.160	57.570	47.900
1.3720	62.350	66.880	46.500	56.220	46.740
1.3760	61.910	67.320	47.380	55.380	47.360
1.3800	61.930	67.030	48.160	54.960	48.820
1.3840	61.990	66.910	49.530	53.820	48.020
1.3880	62.430	66.750	47.380	52.060	45.980
1.3920	62.290	66.530	48.000	51.630	46.670
1.3960	62.600	67.400	48.290	51.270	47.700
1.4000	62.960	66.600	48.590	51.810	47.360
1.4040	61.760	66.700	47.940	54.180	47.960
1.4080	61.670	66.660	47.730	53.720	47.920
1.4120	62.030	66.820	49.490	53.230	47.400
1.4160	62.020	66.680	49.930	53.720	46.490
1.4200	61.130	66.720	51.930	54.060	47.590
1.4240	60.680	67.300	56.890	53.330	47.460
1.4280	60.530	67.250	61.860	52.410	47.220
1.4320	60.670	67.070	69.040	53.180	47.580
1.4360	60.630	66.700	75.580	53.760	50.550
1.4400	60.420	67.010	80.070	55.170	51.480
1.4440	59.960	66.620	81.630	54.320	47.510
1.4480	63.620	65.940	78.750	54.730	46.040
1.4520	63.040	64.930	72.580	55.850	47.620
1.4560	59.910	65.780	64.910	56.820	47.260
1.4600	60.330	66.160	59.690	56.980	46.480
1.4640	60.090	66.710	53.750	56.230	46.900
1.4680	59.450	66.450	51.230	55.610	47.380
1.4720	59.730	65.890	51.650	54.850	47.640
1.4760	59.470	66.510	51.400	53.730	47.970
1.4800	58.930	66.260	50.670	54.570	46.750
1.4840	58.320	66.330	49.050	55.430	46.600
1.4880	58.500	65.420	48.970	55.310	48.170
1.4920	59.110	66.050	51.810	55.270	48.190
1.4960	58.510	66.060	53.090	55.380	47.270
1.5000	58.200	65.210	51.100	55.140	47.430
1.5040	58.210	65.310	50.150	53.110	47.040
1.5080	58.160	65.090	47.920	52.660	46.620
1.5120	57.190	64.560	47.210	53.220	47.980
1.5160	57.420	63.980	47.450	54.570	47.620
1.5200	57.450	64.080	48.010	55.260	47.070
1.5240	56.880	64.010	48.740	53.050	46.750
1.5280	56.770	64.150	47.730	50.710	47.320
1.5320	56.930	63.820	46.320	50.910	46.940
1.5360	56.700	63.690	48.190	50.220	46.100
1.5400	56.600	63.580	50.880	45.000	46.930
1.5440	55.980	63.340	51.740	49.860	47.550
1.5480	54.970	63.620	57.250	53.350	47.380
1.5520	55.130	63.090	59.500	50.500	47.120
1.5560	54.910	63.710	60.700	49.870	45.410
1.5600	55.070	62.810	58.580	50.140	47.540
1.5640	54.660	62.330	43.330	42.100	47.210
1.5680	55.280	63.720	49.150	49.590	48.250
1.5720	55.430	64.000	47.950	49.240	47.290
1.5760	54.080	62.860	47.870	49.320	47.160
1.5800	54.560	63.460	48.010	49.270	48.170
1.5840	54.710	62.510	47.160	49.490	47.100

1.5880	55.110	62.110	48.910	49.130	46.940
1.5920	54.900	62.570	46.870	49.760	47.080
1.5960	53.840	62.090	46.460	49.980	47.400
1.6000	54.140	63.480	46.680	46.730	47.700
1.6040	54.920	63.540	46.650	47.600	47.070
1.6080	55.420	63.130	47.360	46.370	47.930
1.6120	56.350	63.380	48.820	48.770	49.050
1.6160	56.100	63.680	48.080	47.840	48.230
1.6200	55.110	63.400	43.010	47.700	48.430
1.6240	54.420	63.610	48.080	47.100	48.220
1.6280	55.030	63.930	47.740	46.600	47.780
1.6320	56.270	64.180	50.820	48.380	47.630
1.6360	56.430	65.090	50.490	48.380	47.540
1.6400	56.740	64.320	50.560	49.110	47.300
1.6440	55.610	65.280	51.270	50.000	47.620
1.6480	56.420	66.390	52.140	48.390	46.890
1.6520	57.310	65.500	53.750	48.310	47.380
1.6560	57.380	66.020	54.790	47.690	47.630
1.6600	57.330	65.930	55.820	47.370	46.990
1.6640	57.670	66.180	57.710	47.930	46.760
1.6680	57.090	66.360	58.390	48.900	45.290
1.6720	57.760	65.400	57.970	49.270	46.980
1.6760	58.260	66.090	58.490	46.700	47.100
1.6800	57.860	66.000	60.590	48.290	48.390
1.6840	57.670	66.840	58.970	48.510	47.460
1.6880	57.790	66.880	54.420	47.010	47.400
1.6920	57.970	66.570	52.430	50.200	47.150
1.6960	57.620	66.690	50.370	49.060	46.970
1.7000	57.290	67.590	48.940	49.050	46.870
1.7040	57.540	66.580	47.550	47.490	47.390
1.7080	58.300	66.010	47.780	48.400	48.880
1.7120	58.650	65.810	47.360	49.930	47.350
1.7160	58.510	66.470	46.770	48.370	47.320
1.7200	58.870	66.900	46.890	48.540	46.750
1.7240	58.180	66.490	47.050	46.010	47.060
1.7280	58.580	66.520	46.870	44.740	47.300
1.7320	59.700	66.900	47.350	48.300	46.920
1.7360	59.030	67.050	46.970	48.120	46.540
1.7400	57.620	66.980	48.410	48.330	47.500
1.7440	58.590	67.560	48.490	47.270	47.510
1.7480	58.440	67.140	47.020	47.780	46.530
1.7520	58.640	65.680	46.260	47.500	46.790
1.7560	59.320	67.220	46.510	47.470	46.810
1.7600	59.080	67.420	47.370	50.660	43.580
1.7640	59.320	67.210	48.260	48.040	47.350
1.7680	58.210	67.460	48.070	47.000	47.650
1.7720	58.720	67.130	47.060	46.910	46.700
1.7760	59.130	67.410	47.190	48.190	45.510
1.7800	58.910	66.700	47.700	47.090	48.230
1.7840	59.250	66.500	47.280	46.770	48.060
1.7880	58.330	66.110	47.650	47.030	47.620
1.7920	57.850	67.000	47.360	46.440	46.800
1.7960	57.840	67.580	47.040	47.250	46.940
1.8000	57.970	67.520	47.650	47.470	46.630
1.8040	58.260	68.400	48.350	47.550	47.140
1.8080	58.210	68.160	47.610	47.540	46.800
1.8120	58.710	67.680	46.840	47.730	47.050

1.8160	58.910	67.390	47.620	47.550	46.270
1.8200	58.660	68.360	44.800	47.590	46.640
1.8240	57.820	68.700	47.410	48.850	46.490
1.8280	57.980	67.850	46.880	47.740	47.630
1.8320	58.200	67.930	48.160	50.160	46.860
1.8360	57.970	68.160	47.390	48.210	47.420
1.8400	58.640	67.830	46.530	47.410	47.970
1.8440	57.580	67.650	47.510	47.420	48.270
1.8480	56.620	67.670	48.530	47.180	47.760
1.8520	56.960	67.720	47.920	47.620	48.680
1.8560	57.270	67.970	48.330	47.500	47.420
1.8600	56.950	66.950	47.640	47.860	47.680
1.8640	57.210	66.620	47.930	48.450	47.200
1.8680	57.310	67.500	48.120	47.650	47.240
1.8720	58.220	67.950	45.740	47.780	47.440
1.8760	57.810	67.330	46.200	49.150	47.140
1.8800	57.510	68.140	47.030	48.390	46.700
1.8840	56.920	68.100	47.290	49.150	47.400
1.8880	56.200	67.550	47.190	46.550	47.120
1.8920	55.250	66.740	46.630	47.000	47.310
1.8960	55.360	67.030	46.560	47.090	46.710
1.9000	56.720	66.980	48.170	47.210	46.220
1.9040	56.930	67.610	47.400	48.080	45.150
1.9080	56.130	67.860	47.250	48.900	48.010
1.9120	55.620	67.020	47.780	48.730	47.600
1.9160	54.950	65.960	47.370	48.640	47.350
1.9200	54.960	66.520	46.070	49.330	47.610
1.9240	56.010	66.310	47.400	49.060	47.330
1.9280	56.730	65.980	47.220	47.550	46.970
1.9320	56.090	66.260	47.890	48.430	47.460
1.9360	56.210	66.300	47.670	49.150	47.100
1.9400	56.240	65.770	47.400	50.210	47.470
1.9440	56.680	65.500	46.920	48.880	47.770
1.9480	56.150	65.260	47.230	48.960	48.230
1.9520	55.020	65.580	47.330	48.470	47.260
1.9560	55.850	66.130	47.010	46.970	47.280
1.9600	56.040	65.970	48.430	48.640	47.500
1.9640	55.910	66.400	47.740	49.550	47.000
1.9680	55.700	66.470	46.660	48.710	46.670
1.9720	56.050	66.380	47.910	49.610	46.320
1.9760	55.510	65.360	47.880	49.380	47.540
1.9800	55.670	66.240	47.620	50.640	47.220
1.9840	55.870	66.120	46.640	51.840	47.890
1.9880	55.150	65.650	46.730	52.940	47.660
1.9920	56.480	69.980	47.290	56.030	46.380
1.9960	80.990	127.39	47.510	64.350	48.270
2.0000	86.970	133.46	47.400	69.380	47.340
2.0040	80.990	127.49	47.100	64.240	46.490
2.0080	57.410	71.500	47.470	55.100	47.590
2.0120	55.840	66.250	47.270	51.680	47.830
2.0160	56.530	65.540	48.140	50.060	46.530
2.0200	56.500	64.560	47.290	50.200	46.490
2.0240	56.080	63.380	47.120	49.090	47.090
2.0280	55.260	63.210	47.070	47.260	46.530
2.0320	55.350	63.300	46.700	48.170	46.930
2.0360	56.260	63.380	45.980	48.160	46.790
2.0400	56.310	63.890	47.220	47.870	46.940

2.0440	56.140	64.280	48.140	46.590	47.190
2.0480	55.780	63.590	48.170	46.250	46.310
2.0520	56.250	64.040	47.760	47.390	46.150
2.0560	56.070	62.630	47.490	48.150	45.240
2.0600	56.020	63.370	46.740	48.840	47.670
2.0640	55.590	63.130	46.840	48.750	47.860
2.0680	54.990	64.330	47.510	46.690	47.390
2.0720	55.440	64.840	46.220	46.990	46.690
2.0760	55.910	65.800	46.610	46.750	47.730
2.0800	57.070	65.230	46.900	46.240	46.950
2.0840	56.400	64.940	47.050	46.890	46.520
2.0880	56.110	65.430	46.610	47.060	47.330
2.0920	55.100	65.030	46.980	48.340	47.200
2.0960	55.390	65.680	47.240	47.610	47.810
2.1000	55.190	65.200	47.300	46.890	47.050
2.1040	55.030	65.160	47.450	46.730	47.310
2.1080	55.280	65.720	48.720	46.850	47.630
2.1120	54.900	66.080	46.610	47.330	47.410
2.1160	54.490	65.100	47.260	47.590	47.560
2.1200	54.400	65.260	48.430	48.550	47.370
2.1240	54.290	66.240	48.240	47.440	47.190
2.1280	54.150	66.860	48.250	47.010	46.840
2.1320	53.600	66.370	46.810	47.690	47.670
2.1360	54.790	65.890	46.580	46.630	46.190
2.1400	54.040	66.340	46.610	47.350	46.950
2.1440	54.320	66.600	46.690	46.950	46.470
2.1480	54.630	65.830	47.290	47.610	46.480
2.1520	54.970	66.140	47.010	47.570	46.150
2.1560	54.890	66.050	47.340	48.150	47.020
2.1600	54.130	66.020	47.230	46.470	47.670
2.1640	53.040	66.150	46.150	47.300	48.410
2.1680	52.900	65.920	47.050	47.970	47.930
2.1720	52.780	65.930	46.950	47.840	47.070
2.1760	53.860	66.910	47.670	47.950	46.630
2.1800	55.160	67.270	47.640	47.310	47.620
2.1840	54.920	67.180	47.440	46.270	48.270
2.1880	53.490	65.940	47.450	45.940	47.050
2.1920	53.810	65.250	47.710	47.250	47.200
2.1960	53.950	66.080	47.500	47.270	47.610
2.2000	54.160	66.250	47.470	46.250	47.750
2.2040	54.940	66.670	47.450	46.300	47.960
2.2080	53.780	65.860	47.240	47.060	47.410
2.2120	53.550	65.830	46.790	47.770	46.640
2.2160	53.680	66.330	46.900	47.490	46.190
2.2200	55.070	65.770	47.870	47.260	46.980
2.2240	55.260	66.220	48.420	47.860	47.180
2.2280	53.690	66.650	47.490	47.430	47.260
2.2320	54.270	66.900	47.240	46.890	46.740
2.2360	54.320	67.870	47.630	46.650	46.920
2.2400	54.530	67.910	47.470	46.990	47.380
2.2440	54.830	67.010	47.280	47.220	48.010
2.2480	54.800	66.570	46.710	48.070	47.460
2.2520	53.800	66.040	47.720	47.970	46.450
2.2560	54.220	66.090	47.830	46.790	46.800
2.2600	55.120	66.650	47.600	47.320	47.750
2.2640	54.640	66.420	48.040	47.470	48.030
2.2680	54.800	67.320	47.140	47.750	47.920

2.2720	54.690	67.730	46.480	47.370	47.470
2.2760	54.800	67.940	47.880	46.570	47.270
2.2800	53.430	67.380	47.250	47.370	48.030
2.2840	54.680	67.780	47.410	47.120	48.800
2.2880	54.550	68.130	48.530	47.330	47.080
2.2920	55.320	68.410	47.810	47.030	46.150
2.2960	54.500	67.980	47.240	47.400	46.790
2.3000	55.220	68.200	46.780	47.930	46.290
2.3040	55.330	68.370	46.740	46.720	47.060
2.3080	55.680	68.060	47.420	47.130	47.770
2.3120	55.590	68.320	47.770	47.210	47.380
2.3160	55.550	68.070	47.350	46.810	47.380
2.3200	55.330	67.650	46.320	46.830	46.950
2.3240	55.410	67.430	46.950	47.320	47.050
2.3280	55.780	67.530	47.470	47.920	47.210
2.3320	55.910	67.030	47.460	48.100	47.190
2.3360	55.430	67.180	47.050	47.590	47.570
2.3400	54.850	67.010	46.840	48.080	46.060
2.3440	53.970	66.510	47.290	46.780	46.250
2.3480	53.790	65.550	46.700	47.190	46.070
2.3520	53.550	64.910	47.730	47.360	47.270
2.3560	53.160	63.860	47.200	48.020	47.240
2.3600	52.360	63.120	46.630	47.970	46.730
2.3640	51.890	63.070	46.860	47.980	45.670
2.3680	51.440	61.250	45.760	47.800	45.500
2.3720	50.470	60.290	47.150	47.630	47.170
2.3760	50.190	59.670	47.530	47.430	47.500
2.3800	51.190	59.410	46.530	47.380	47.770
2.3840	49.840	59.650	46.560	47.100	47.870
2.3880	49.300	59.560	46.790	47.410	47.080
2.3920	49.790	59.230	46.620	46.950	47.010
2.3960	50.740	58.790	46.360	46.980	47.100
2.4000	49.760	58.880	47.610	47.460	46.610
2.4040	48.730	59.030	47.160	48.650	46.990
2.4080	48.800	59.320	47.100	47.660	48.340
2.4120	50.360	60.400	46.830	47.400	46.690
2.4160	50.260	59.280	46.510	47.280	47.540
2.4200	50.260	60.050	46.480	46.390	48.690
2.4240	49.280	60.790	47.690	47.000	47.350
2.4280	49.860	61.790	46.610	47.570	47.650
2.4320	49.930	61.860	46.980	47.790	47.290
2.4360	49.840	60.430	45.640	47.680	47.080
2.4400	50.730	60.000	47.070	46.860	46.400
2.4440	50.930	60.810	47.040	47.640	47.960
2.4480	50.980	61.160	46.530	47.460	48.110
2.4520	51.040	61.380	46.910	46.810	46.700
2.4560	51.480	61.570	47.520	47.830	45.720
2.4600	50.910	61.530	47.460	47.770	46.970
2.4640	50.010	62.480	46.980	47.160	47.380
2.4680	50.650	62.790	47.500	47.580	46.820
2.4720	51.170	62.830	46.630	48.040	47.490
2.4760	50.530	62.850	47.400	47.660	46.700
2.4800	50.980	62.750	45.910	46.830	47.480
2.4840	51.330	63.200	46.500	48.380	47.530
2.4880	50.870	62.670	47.950	48.330	47.130
2.4920	47.730	62.850	47.550	48.070	47.330
2.4960	51.800	63.160	47.080	48.440	47.210

2.5000	51.270	63.190	46.210	48.630	46.990
2.5040	52.310	62.910	46.390	47.840	47.490
2.5080	52.290	62.830	47.120	49.170	47.500
2.5120	52.100	63.200	47.320	50.140	47.540
2.5160	50.260	63.990	47.130	48.690	47.820
2.5200	50.600	63.300	47.420	48.130	47.140
2.5240	52.250	63.690	47.520	48.180	47.570
2.5280	53.310	64.580	48.070	49.070	47.350
2.5320	52.270	64.340	48.460	49.860	47.100
2.5360	52.220	64.750	46.730	50.140	47.230
2.5400	52.540	65.020	46.900	50.750	46.810
2.5440	53.180	65.040	47.830	50.900	46.880
2.5480	53.430	64.250	47.570	51.440	46.810
2.5520	52.670	64.030	47.260	49.420	47.230
2.5560	53.410	64.690	47.110	49.090	46.210
2.5600	52.510	65.450	48.010	49.780	46.940
2.5640	52.240	66.200	46.710	49.900	47.380
2.5680	54.100	65.930	46.670	49.260	47.660
2.5720	53.240	65.100	50.230	49.510	47.260
2.5760	53.070	65.570	53.410	49.940	47.390
2.5800	54.820	66.040	48.740	50.870	47.630
2.5840	55.040	65.690	47.600	50.010	47.280
2.5880	54.610	65.790	47.380	50.810	47.190
2.5920	55.410	66.940	47.030	52.890	47.370
2.5960	55.400	67.400	45.850	53.730	46.450
2.6000	55.360	67.660	46.680	54.110	47.040
2.6040	55.750	68.270	47.250	54.640	46.730
2.6080	56.120	68.750	47.360	56.880	47.040
2.6120	55.750	68.180	47.240	56.930	48.260
2.6160	56.020	68.160	47.990	58.500	46.870
2.6200	57.680	68.250	47.250	60.460	46.750
2.6240	57.140	69.170	47.040	61.080	47.220
2.6280	57.750	69.270	46.650	62.920	47.450
2.6320	58.350	69.300	47.950	63.660	46.290
2.6360	57.520	68.890	47.550	64.260	47.120
2.6400	58.060	70.210	48.280	65.140	46.870
2.6440	59.060	70.340	47.620	65.840	47.520
2.6480	59.340	70.370	47.120	67.230	47.070
2.6520	59.930	70.600	47.400	67.170	47.830
2.6560	60.150	70.350	47.550	67.520	46.560
2.6600	60.410	69.010	47.700	68.430	46.670
2.6640	60.220	69.690	47.050	68.190	47.410
2.6680	59.540	68.950	47.070	68.990	47.580
2.6720	58.660	68.560	47.570	68.530	47.480
2.6760	56.880	67.520	47.030	66.980	47.840
2.6800	56.870	66.470	46.770	66.070	47.220
2.6840	55.760	65.890	46.890	65.810	47.290
2.6880	54.980	65.240	46.880	63.220	46.950
2.6920	55.050	64.920	47.060	61.840	47.460
2.6960	54.230	64.620	47.600	60.740	46.990
2.7000	52.950	63.480	48.360	59.480	47.340
2.7040	51.350	62.000	47.950	58.220	48.160
2.7080	50.260	61.370	47.280	57.130	48.440
2.7120	50.580	59.940	48.020	55.470	47.770
2.7160	49.840	58.590	47.090	52.400	46.630
2.7200	49.100	58.540	46.660	52.670	47.020
2.7240	49.220	57.570	46.710	51.820	48.060

2.7280	48.880	56.010	48.320	49.610	47.670
2.7320	48.310	56.260	47.740	48.920	47.010
2.7360	46.950	55.560	46.930	48.950	46.630
2.7400	47.050	54.830	46.420	49.690	46.190
2.7440	48.610	54.330	47.100	49.120	45.730
2.7480	48.040	54.390	47.490	48.810	47.990
2.7520	47.600	53.860	46.960	49.020	45.750
2.7560	48.280	54.520	47.990	49.050	47.390
2.7600	49.230	55.360	48.150	49.700	46.670
2.7640	48.390	55.030	48.630	49.120	47.510
2.7680	48.100	55.240	48.560	48.970	47.560
2.7720	48.760	55.410	49.260	48.310	46.420
2.7760	48.660	56.310	50.090	49.060	46.860
2.7800	49.040	56.540	48.060	49.110	46.990
2.7840	48.740	56.890	47.980	49.220	46.660
2.7880	48.680	56.990	47.850	49.810	47.660
2.7920	50.060	57.110	47.410	48.430	47.650
2.7960	50.190	57.520	47.460	48.420	47.280
2.8000	50.440	58.910	48.090	48.380	45.460
2.8040	50.210	59.200	47.650	48.350	47.060
2.8080	50.000	59.010	46.690	47.570	47.590
2.8120	49.130	58.550	47.200	48.680	47.080
2.8160	50.580	59.590	47.690	47.740	47.120
2.8200	49.850	60.130	47.300	47.570	47.520
2.8240	50.470	59.650	46.570	48.640	47.090
2.8280	50.520	60.680	46.230	48.670	47.180
2.8320	51.360	60.550	47.520	48.210	47.350
2.8360	51.370	61.810	47.240	49.060	46.860
2.8400	51.060	61.440	47.160	48.260	47.310
2.8440	51.470	60.900	47.640	48.890	46.430
2.8480	51.200	62.170	46.920	48.500	47.510
2.8520	52.210	62.060	48.240	49.260	47.560
2.8560	52.930	62.500	48.130	48.400	47.820
2.8600	51.980	63.460	47.730	48.240	48.180
2.8640	52.250	62.290	47.530	49.060	48.760
2.8680	53.220	62.780	47.160	49.230	46.820
2.8720	53.030	63.170	47.910	49.650	46.640
2.8760	53.120	62.970	48.750	48.800	47.320
2.8800	53.380	64.060	48.140	48.980	46.890
2.8840	53.990	63.590	48.050	49.090	47.230
2.8880	55.220	63.240	48.690	49.640	47.570
2.8920	55.460	64.260	49.160	50.070	48.200
2.8960	54.810	64.780	48.470	50.660	48.190
2.9000	54.130	65.480	48.410	51.050	46.840
2.9040	54.160	66.020	48.550	51.760	45.760
2.9080	55.790	65.650	47.890	51.710	47.040
2.9120	55.500	65.960	47.620	51.850	47.130
2.9160	56.240	66.270	46.690	52.190	47.630
2.9200	56.630	66.510	47.600	53.470	46.840
2.9240	57.380	66.820	48.200	53.150	47.050
2.9280	56.430	66.970	47.810	53.220	47.140
2.9320	56.520	67.870	46.370	52.870	47.430
2.9360	58.100	68.180	48.290	52.040	47.170
2.9400	58.630	67.720	49.830	53.120	48.680
2.9440	59.620	68.420	48.610	54.540	47.530
2.9480	59.920	68.230	50.880	54.650	45.340
2.9520	59.790	68.560	48.850	55.460	46.430

2.9560	61.240	67.970	48.460	55.380	46.290
2.9600	62.920	68.070	49.350	55.260	46.510
2.9640	63.740	68.230	49.930	55.420	46.310
2.9680	65.190	68.090	50.050	55.740	47.590
2.9720	65.920	68.300	50.060	55.660	45.800
2.9760	65.580	67.910	51.520	55.030	45.730
2.9800	66.880	67.420	52.380	54.950	46.970
2.9840	66.760	66.930	57.450	54.450	46.750
2.9880	66.640	66.030	63.840	54.100	47.940
2.9920	65.530	64.670	75.740	52.430	47.990
2.9960	104.08	63.130	130.07	52.030	48.510
3.0000	110.17	62.780	136.16	52.420	49.130
3.0040	104.21	61.940	130.22	51.340	47.530
3.0080	63.320	62.110	75.890	51.970	46.540
3.0120	63.320	60.460	63.940	49.360	47.490
3.0160	62.450	59.480	56.810	50.320	47.800
3.0200	61.800	59.040	52.600	49.350	46.720
3.0240	59.810	58.460	49.870	48.930	46.730
3.0280	58.990	57.880	45.550	49.910	47.250
3.0320	57.520	56.100	48.730	49.090	46.990
3.0360	56.340	55.880	48.660	49.300	47.320
3.0400	55.400	56.020	47.960	48.880	47.810
3.0440	52.650	56.850	47.640	48.550	46.470
3.0480	52.500	56.430	47.380	48.950	46.720
3.0520	51.570	56.450	47.590	48.630	46.280
3.0560	51.180	56.390	48.070	49.640	47.420
3.0600	50.930	55.550	48.810	51.250	47.900
3.0640	49.640	55.840	47.420	48.810	47.730
3.0680	49.910	56.190	47.560	48.460	47.530
3.0720	50.460	56.170	43.500	48.590	47.610
3.0760	49.820	56.180	46.620	49.130	47.460
3.0800	49.360	56.690	47.710	48.960	46.970
3.0840	50.060	57.320	47.530	48.560	47.570
3.0880	48.850	57.490	46.680	48.170	47.400
3.0920	50.070	57.450	47.790	47.690	47.120
3.0960	49.340	57.870	48.600	49.420	47.420
3.1000	50.000	57.480	49.820	49.610	46.550
3.1040	50.300	58.530	51.760	48.330	47.740
3.1080	49.750	58.690	53.010	48.350	47.520
3.1120	50.330	58.520	53.700	48.490	47.030
3.1160	50.160	58.630	53.690	48.620	46.670
3.1200	50.830	59.330	53.420	49.240	45.750
3.1240	50.480	59.710	51.760	47.100	46.680
3.1280	50.560	59.530	50.150	48.210	46.780
3.1320	50.660	59.810	49.000	48.600	48.200
3.1360	50.770	59.700	47.670	47.860	49.000
3.1400	51.400	60.260	47.870	48.570	47.880
3.1440	52.290	61.460	47.280	49.420	47.060
3.1480	51.550	61.790	47.030	48.970	47.140
3.1520	51.700	62.140	47.940	47.490	46.360
3.1560	52.010	62.230	47.890	50.080	46.590
3.1600	52.300	62.220	47.650	48.820	45.690
3.1640	52.340	62.480	48.560	47.770	46.610
3.1680	51.250	63.090	48.090	49.290	46.930
3.1720	52.480	63.170	47.120	48.470	46.100
3.1760	54.270	64.200	47.300	48.440	47.870
3.1800	53.360	64.430	49.510	49.540	46.940

3.1840	52.190	65.010	47.720	49.790	46.450
3.1880	51.990	64.360	47.900	49.540	47.280
3.1920	52.910	65.020	47.210	49.320	47.740
3.1960	52.880	65.580	47.760	49.920	46.860
3.2000	52.600	65.280	48.050	48.630	47.080
3.2040	53.120	64.220	47.990	49.630	47.280
3.2080	52.950	63.900	47.480	50.200	46.860
3.2120	52.380	64.040	47.570	50.450	47.260
3.2160	52.040	64.670	48.000	50.760	46.320
3.2200	52.430	64.620	47.530	50.050	47.410
3.2240	52.850	63.500	48.060	49.490	47.370
3.2280	51.930	63.320	48.150	48.300	47.420
3.2320	51.390	62.820	46.910	48.490	47.500
3.2360	51.560	62.470	48.260	50.020	47.200
3.2400	51.450	61.950	48.910	50.020	47.160
3.2440	50.510	61.130	47.570	49.920	46.950
3.2480	50.090	59.980	47.730	49.950	46.050
3.2520	48.530	60.100	48.830	49.290	45.950
3.2560	48.650	60.850	48.550	49.130	46.370
3.2600	48.810	59.740	47.840	50.220	47.380
3.2640	48.650	58.880	47.630	50.260	46.500
3.2680	48.550	58.120	47.910	50.270	45.720
3.2720	48.720	58.090	47.940	50.110	46.070
3.2760	48.650	56.840	47.790	49.040	45.130
3.2800	48.340	56.210	46.920	49.440	46.600
3.2840	47.990	55.570	47.980	48.660	46.630
3.2880	48.190	55.550	47.060	48.850	47.670
3.2920	47.970	54.950	47.190	50.680	48.250
3.2960	48.420	55.400	48.080	49.970	45.680
3.3000	48.480	55.430	47.400	49.720	46.740
3.3040	47.670	54.650	46.650	48.940	47.110
3.3080	47.690	53.990	47.600	49.230	45.700
3.3120	48.360	54.730	47.410	50.270	47.370
3.3160	48.010	54.420	47.640	51.220	47.090
3.3200	46.670	54.200	47.680	53.490	46.670
3.3240	47.090	53.580	46.070	55.140	47.620
3.3280	46.970	54.760	47.340	56.780	47.930
3.3320	47.220	55.010	47.650	53.030	47.540
3.3360	48.200	54.740	47.020	51.540	47.650
3.3400	48.990	55.000	46.460	49.910	46.750
3.3440	48.400	56.360	47.360	51.420	45.740
3.3480	47.830	57.040	46.930	49.920	47.860
3.3520	47.780	56.840	47.060	50.240	47.640
3.3560	47.260	56.680	46.760	49.520	47.110
3.3600	47.730	57.460	47.500	50.270	47.610
3.3640	47.870	59.160	47.410	50.320	47.360
3.3680	48.640	58.900	47.130	49.900	46.850
3.3720	48.710	58.060	48.050	50.540	48.230
3.3760	48.930	58.260	47.620	50.220	47.900
3.3800	47.410	59.370	46.260	49.900	47.140
3.3840	49.660	59.890	46.880	48.320	47.490
3.3880	49.350	60.320	47.130	48.920	46.950
3.3920	49.440	60.100	48.500	49.670	46.900
3.3960	49.310	60.420	47.850	51.650	47.460
3.4000	50.370	60.670	47.090	52.880	47.870
3.4040	50.160	63.610	43.940	50.740	47.120
3.4080	50.940	64.120	46.010	48.840	47.200

3.4120	51.140	63.800	47.090	50.960	47.490
3.4160	51.360	64.400	47.890	50.160	49.680
3.4200	51.410	64.370	57.180	53.380	47.680
3.4240	51.420	64.230	64.660	47.690	47.380
3.4280	52.580	64.900	53.020	52.400	46.540
3.4320	52.370	65.810	47.780	52.610	46.640
3.4360	53.150	66.650	47.370	48.230	48.130
3.4400	52.570	66.780	47.210	51.500	48.150
3.4440	53.360	67.350	46.570	52.630	47.490
3.4480	53.860	67.870	47.300	53.220	46.750
3.4520	54.970	67.910	46.890	50.950	46.700
3.4560	54.930	68.010	46.990	53.970	46.390
3.4600	54.340	67.990	47.050	55.010	47.030
3.4640	54.690	67.920	47.330	55.530	46.720
3.4680	54.100	67.730	46.360	53.610	47.140
3.4720	53.710	66.500	47.560	53.030	47.410
3.4760	52.960	66.700	47.310	52.790	47.210
3.4800	53.230	66.720	47.540	52.210	44.170
3.4840	53.420	65.860	47.340	52.930	46.350
3.4880	53.350	65.100	49.260	52.190	47.410
3.4920	52.850	64.100	46.650	52.680	46.610
3.4960	52.030	63.280	48.530	52.760	46.530
3.5000	51.910	63.040	47.300	55.330	47.670
3.5040	51.140	62.930	46.580	53.850	46.390
3.5080	50.240	62.140	45.960	49.730	47.020
3.5120	50.250	61.300	46.820	48.640	47.050
3.5160	49.830	60.030	45.690	52.470	47.480
3.5200	50.250	58.680	47.230	55.720	46.980
3.5240	50.200	59.450	46.310	51.680	46.760
3.5280	48.380	59.300	48.750	48.930	46.690
3.5320	48.790	57.330	47.500	48.900	46.570
3.5360	48.870	57.590	46.970	49.290	46.860
3.5400	48.520	57.360	47.280	49.070	47.410
3.5440	48.670	56.200	48.250	48.310	47.620
3.5480	48.310	55.360	47.580	48.340	47.600
3.5520	47.890	55.100	46.920	47.890	47.940
3.5560	47.830	54.650	47.030	48.750	47.650
3.5600	47.070	54.340	46.820	48.920	46.950
3.5640	47.720	53.750	46.310	48.850	46.520
3.5680	48.310	53.490	46.770	47.120	45.860
3.5720	47.750	51.890	46.550	45.220	45.990
3.5760	47.440	51.740	46.650	55.880	47.590
3.5800	48.560	51.250	46.040	55.910	47.020
3.5840	46.760	50.150	47.550	44.790	46.950
3.5880	46.720	49.590	47.820	47.050	47.690
3.5920	46.730	50.790	47.960	48.060	48.110
3.5960	47.300	50.850	47.380	47.240	46.510
3.6000	47.800	50.160	47.990	49.120	47.220
3.6040	47.810	50.710	47.640	47.300	47.890
3.6080	47.040	49.610	46.940	47.290	47.350
3.6120	46.720	50.120	46.630	47.300	47.690
3.6160	47.030	50.460	47.210	47.790	47.880
3.6200	48.220	50.360	47.480	47.920	47.630
3.6240	47.350	50.490	47.320	46.780	47.260
3.6280	46.530	51.020	45.710	45.260	47.480
3.6320	47.230	51.930	46.390	46.810	47.750
3.6360	47.670	52.420	47.230	48.000	47.680

3.6400	48.440	52.500	46.240	49.090	47.850
3.6440	47.360	52.570	46.830	47.560	48.000
3.6480	47.110	52.420	47.680	47.440	47.480
3.6520	46.730	52.940	47.740	47.170	47.200
3.6560	47.520	54.430	45.460	47.590	47.660
3.6600	46.910	55.670	45.850	46.740	46.680
3.6640	46.080	56.280	47.650	47.620	46.930
3.6680	47.100	56.910	46.870	48.130	47.900
3.6720	48.190	56.730	46.990	47.080	47.280
3.6760	49.160	56.750	47.500	46.100	47.640
3.6800	50.180	57.510	46.310	46.440	46.530
3.6840	46.500	57.490	47.250	47.280	47.230
3.6880	48.330	58.500	48.580	47.920	47.690
3.6920	48.040	59.670	47.840	47.470	47.320
3.6960	48.720	60.350	47.040	47.630	47.370
3.7000	49.700	60.950	47.640	48.200	47.690
3.7040	49.280	61.830	46.900	48.020	46.180
3.7080	49.150	62.850	47.130	48.930	47.350
3.7120	50.120	63.560	47.750	49.310	43.260
3.7160	50.020	64.840	47.670	49.480	49.280
3.7200	52.050	65.670	47.850	47.860	47.840
3.7240	52.400	66.240	47.030	50.630	46.990
3.7280	53.120	66.490	47.760	49.910	46.750
3.7320	54.560	66.300	47.570	48.760	48.660
3.7360	55.690	67.710	47.050	50.900	46.970
3.7400	55.370	69.100	47.320	52.080	48.140
3.7440	54.710	69.180	46.850	50.730	47.670
3.7480	55.690	69.360	46.900	50.940	46.400
3.7520	55.640	69.640	48.110	51.410	47.170
3.7560	55.960	69.260	47.360	51.640	46.510
3.7600	55.750	69.080	47.390	57.740	47.020
3.7640	55.490	68.370	45.800	55.990	47.390
3.7680	54.030	67.900	46.620	51.700	46.430
3.7720	53.910	67.240	46.700	53.250	46.910
3.7760	53.430	66.270	48.650	51.550	47.980
3.7800	53.890	65.740	48.040	50.600	47.770
3.7840	53.540	65.050	47.000	50.020	47.050
3.7880	52.010	63.800	47.440	48.710	45.860
3.7920	51.290	63.850	47.600	49.290	47.120
3.7960	50.540	63.050	47.390	48.510	46.200
3.8000	51.320	63.290	47.080	49.700	46.820
3.8040	51.060	62.490	47.860	34.250	46.510
3.8080	50.080	62.630	47.470	42.000	45.370
3.8120	48.850	63.180	46.700	45.020	46.300
3.8160	48.590	61.800	48.510	48.340	46.480
3.8200	47.530	60.480	46.830	49.830	47.510
3.8240	48.540	60.680	46.510	47.950	47.180
3.8280	48.600	60.350	47.070	48.450	46.800
3.8320	49.170	59.990	47.320	48.250	47.140
3.8360	47.970	58.480	46.710	42.950	47.910
3.8400	48.800	57.940	46.720	51.030	47.500
3.8440	49.200	57.820	47.420	47.960	47.470
3.8480	48.700	56.810	47.470	48.390	47.410
3.8520	47.770	55.880	47.100	46.140	47.200
3.8560	49.190	55.380	46.990	48.240	47.400
3.8600	48.450	56.410	47.030	49.380	47.810
3.8640	47.500	56.000	47.020	49.270	45.670

3.8680	46.950	55.220	46.930	48.070	47.000
3.8720	48.220	54.800	47.090	47.380	45.840
3.8760	48.940	54.420	48.210	47.450	47.660
3.8800	48.430	53.280	47.420	47.960	48.110
3.8840	47.090	53.770	46.620	47.600	47.450
3.8880	47.970	54.000	46.660	47.100	46.950
3.8920	47.490	53.660	47.710	49.170	47.390
3.8960	47.520	52.020	47.800	52.910	47.760
3.9000	47.720	52.550	48.350	48.600	47.280
3.9040	47.300	52.610	47.010	47.490	46.540
3.9080	47.840	51.530	46.830	47.800	47.650
3.9120	46.740	50.750	46.740	48.470	47.460
3.9160	46.530	51.100	47.760	50.320	47.610
3.9200	47.040	50.810	47.420	50.170	47.130
3.9240	47.800	49.190	47.010	52.010	47.160
3.9280	47.200	48.690	47.150	49.980	47.610
3.9320	46.100	48.730	46.950	50.820	46.430
3.9360	47.390	49.030	46.650	55.860	46.670
3.9400	46.780	49.230	47.040	58.490	46.400
3.9440	46.550	48.860	48.320	47.820	46.920
3.9480	47.210	49.200	46.310	56.220	47.430
3.9520	45.850	49.840	46.430	52.840	47.850
3.9560	45.840	49.710	46.230	52.920	47.710
3.9600	46.710	49.480	47.730	57.910	47.980
3.9640	47.210	49.730	48.050	57.010	48.600
3.9680	46.030	50.670	47.220	60.290	47.200
3.9720	47.930	51.250	47.470	60.920	47.790
3.9760	48.100	51.610	47.030	63.220	45.620
3.9800	47.890	53.090	46.750	63.090	47.380
3.9840	47.230	54.060	47.550	67.020	47.760
3.9880	49.510	55.210	47.320	71.160	46.820
3.9920	49.900	59.740	47.450	80.010	47.230
3.9960	69.200	105.43	46.970	131.64	47.210
4.0000	75.450	111.58	47.580	137.76	46.210
4.0040	69.770	105.72	46.840	131.84	47.500
4.0080	49.920	62.580	48.220	80.810	47.720
4.0120	50.570	60.230	50.210	73.250	47.240
4.0160	50.820	60.610	47.570	71.580	46.480
4.0200	49.970	61.040	46.510	72.110	46.620
4.0240	50.020	61.690	47.540	71.420	47.230
4.0280	46.690	62.420	47.910	71.520	48.140
4.0320	51.240	63.310	47.490	71.350	47.730
4.0360	51.540	64.250	46.770	70.990	47.220
4.0400	52.040	64.740	46.830	69.160	47.450
4.0440	51.260	65.330	47.660	70.180	47.770
4.0480	53.460	66.420	48.180	69.870	46.860
4.0520	54.940	67.020	46.620	69.060	46.990
4.0560	54.190	67.460	47.230	68.360	47.170
4.0600	54.620	67.820	47.760	68.600	47.070
4.0640	53.710	67.840	47.540	56.460	47.760
4.0680	53.830	67.100	46.350	62.230	47.060
4.0720	53.500	67.740	47.020	59.910	46.790
4.0760	52.920	67.600	47.480	63.500	48.650
4.0800	52.320	65.510	47.670	64.740	47.960
4.0840	52.020	64.850	46.830	59.240	45.710
4.0880	51.140	64.340	47.620	56.140	47.390
4.0920	50.180	62.760	47.350	53.830	47.360

4.0960	49.470	62.480	48.230	54.250	47.740
4.1000	49.440	62.860	47.740	49.090	46.040
4.1040	48.350	62.310	47.760	54.880	46.690
4.1080	48.170	62.160	47.620	42.340	47.640
4.1120	49.520	61.210	47.400	42.730	47.600
4.1160	49.580	61.250	47.180	49.770	47.820
4.1200	49.300	59.900	46.010	49.190	47.430
4.1240	49.110	59.170	47.460	43.930	47.120
4.1280	49.940	58.680	46.830	45.390	47.950
4.1320	49.870	58.770	46.690	49.130	47.130
4.1360	48.630	58.790	47.280	51.170	47.480
4.1400	45.760	57.840	47.040	46.230	49.400
4.1440	46.830	57.680	46.410	47.040	50.070
4.1480	49.080	57.410	46.100	48.830	47.740
4.1520	47.740	57.620	47.300	48.250	48.000
4.1560	47.430	57.650	47.590	50.390	46.950
4.1600	48.010	56.360	46.500	49.160	46.400
4.1640	48.570	55.750	46.870	49.360	46.570
4.1680	49.170	56.020	47.730	48.240	47.930
4.1720	48.660	55.870	47.480	47.250	47.480
4.1760	48.660	55.490	47.610	47.540	46.700
4.1800	47.320	55.170	47.590	49.810	48.390
4.1840	47.440	54.780	47.330	50.120	47.340
4.1880	48.020	55.530	47.820	48.620	47.420
4.1920	47.870	55.540	48.350	48.240	47.300
4.1960	48.070	54.500	47.690	47.730	48.780
4.2000	47.470	54.660	46.550	47.020	48.480
4.2040	47.150	53.350	46.810	48.060	47.340
4.2080	47.800	52.920	47.920	47.740	48.400
4.2120	46.810	52.900	47.650	48.360	47.330
4.2160	47.140	52.880	46.570	48.080	47.830
4.2200	47.570	52.480	46.710	45.270	47.490
4.2240	46.280	52.000	46.810	48.450	48.010
4.2280	46.550	52.930	46.810	49.340	47.100
4.2320	47.790	53.130	45.270	48.140	47.030
4.2360	46.970	50.860	48.490	47.700	48.050
4.2400	46.760	50.890	47.540	45.940	47.570
4.2440	46.680	50.750	47.470	47.000	46.660
4.2480	46.810	51.160	47.190	47.990	47.260
4.2520	46.190	51.260	46.940	48.000	46.930
4.2560	46.810	50.930	46.210	47.000	46.750
4.2600	46.680	51.320	46.480	47.600	45.720
4.2640	47.190	50.730	47.800	47.160	46.690
4.2680	47.470	50.270	47.820	47.370	46.980
4.2720	47.060	49.860	47.260	46.780	46.720
4.2760	47.680	49.450	45.870	45.340	46.790
4.2800	47.690	48.890	47.660	47.840	47.630
4.2840	48.100	50.210	46.700	48.290	48.030
4.2880	47.310	50.910	47.850	47.530	47.710
4.2920	47.010	49.710	47.350	48.760	46.620
4.2960	47.350	50.000	47.130	48.780	48.460
4.3000	47.280	50.810	46.810	49.040	48.340
4.3040	48.160	50.820	48.710	48.150	47.940
4.3080	47.890	51.030	48.230	48.570	46.950
4.3120	48.050	52.100	46.710	47.990	47.770
4.3160	47.930	52.550	52.550	49.290	48.270
4.3200	48.020	53.630	53.480	47.400	46.820

4.3240	47.130	54.630	47.080	48.370	46.840
4.3280	47.830	54.770	47.850	47.960	46.740
4.3320	48.350	56.140	44.930	48.330	48.210
4.3360	48.190	57.520	48.310	49.340	47.730
4.3400	48.680	57.730	47.660	49.050	48.350
4.3440	48.520	59.360	47.610	46.050	48.990
4.3480	48.390	60.620	45.890	46.010	48.360
4.3520	49.600	59.920	47.870	48.860	48.070
4.3560	48.670	62.250	47.870	50.440	47.460
4.3600	49.220	62.960	48.590	51.930	47.240
4.3640	49.240	62.320	49.130	51.330	46.860
4.3680	49.410	62.520	48.960	47.920	47.080
4.3720	49.600	62.770	48.820	48.020	47.320
4.3760	42.330	62.130	47.890	48.760	48.640
4.3800	50.350	62.280	48.390	49.190	46.080
4.3840	48.160	61.770	48.500	48.390	47.790
4.3880	49.710	61.500	47.700	50.570	47.910
4.3920	51.920	60.770	47.840	49.590	48.000
4.3960	48.820	61.160	46.970	48.110	47.580
4.4000	48.250	60.570	47.080	47.610	46.240
4.4040	47.540	59.630	46.540	47.490	45.760
4.4080	48.090	59.160	48.170	49.120	45.880
4.4120	48.520	58.880	48.610	48.010	46.680
4.4160	47.820	57.960	46.620	48.600	47.800
4.4200	47.990	57.690	47.140	58.600	47.150
4.4240	47.860	58.810	47.410	57.610	46.930
4.4280	49.240	58.450	46.950	47.700	46.100
4.4320	48.780	57.910	48.190	48.520	47.040
4.4360	47.730	58.020	46.960	48.680	48.370
4.4400	47.580	57.950	50.720	49.120	47.840
4.4440	47.830	56.900	52.200	46.670	48.040
4.4480	47.110	56.590	55.120	49.230	47.140
4.4520	47.390	55.570	49.040	42.190	47.760
4.4560	46.580	55.900	47.790	48.010	47.540
4.4600	47.980	56.310	47.370	47.230	47.950
4.4640	47.860	55.330	48.230	36.690	47.100
4.4680	47.870	54.870	47.710	50.300	46.580
4.4720	48.750	55.080	46.460	49.370	47.470
4.4760	48.470	54.880	45.690	46.890	47.440
4.4800	47.440	53.570	42.830	49.960	47.580
4.4840	47.640	53.900	48.190	48.820	47.860
4.4880	47.560	54.470	48.320	47.500	46.630
4.4920	47.530	53.690	48.200	48.370	46.680
4.4960	47.870	53.940	48.320	47.310	46.510
4.5000	47.360	54.120	44.040	47.690	47.150
4.5040	46.720	53.700	48.020	50.210	46.810
4.5080	46.820	53.660	47.730	47.630	47.810
4.5120	47.640	54.090	48.840	47.690	47.360
4.5160	48.330	53.470	47.790	48.770	47.690
4.5200	47.770	53.500	47.060	46.760	48.210
4.5240	48.300	53.720	47.030	37.660	47.660
4.5280	47.060	53.800	47.940	47.550	47.350
4.5320	47.880	53.690	48.520	47.520	47.370
4.5360	47.620	53.400	48.100	47.130	47.300
4.5400	47.310	52.560	51.270	47.840	47.580
4.5440	47.020	52.980	54.010	48.820	46.920
4.5480	47.990	52.970	59.840	48.520	46.240

4.5520	49.280	51.990	64.660	47.550	46.560
4.5560	47.260	51.830	67.900	47.510	47.590
4.5600	47.000	52.660	67.120	49.090	47.910
4.5640	47.470	53.170	60.100	42.930	46.950
4.5680	47.250	52.180	56.580	48.870	47.870
4.5720	47.770	52.020	51.090	49.760	46.710
4.5760	47.660	51.760	50.030	46.940	46.510
4.5800	48.190	50.130	47.760	50.960	46.440
4.5840	48.130	50.850	47.420	50.310	47.180
4.5880	48.090	51.710	46.700	46.240	46.820
4.5920	47.950	52.170	47.440	46.350	47.190
4.5960	47.660	52.680	47.270	47.300	46.720
4.6000	47.970	52.050	47.780	42.270	47.130
4.6040	48.250	51.700	47.440	45.880	47.030
4.6080	47.340	51.460	47.000	47.420	47.000
4.6120	46.820	51.910	47.170	50.130	47.610
4.6160	47.690	52.140	48.400	50.550	48.180
4.6200	46.620	52.880	47.220	47.580	47.390
4.6240	46.300	53.610	46.650	49.810	47.310
4.6280	46.180	51.950	47.070	42.770	47.300
4.6320	46.860	53.110	46.970	46.070	47.660
4.6360	47.510	54.040	47.280	45.340	48.150
4.6400	47.010	54.340	47.580	49.210	47.130
4.6440	47.100	54.360	47.370	45.690	47.050
4.6480	47.570	55.900	46.350	51.490	46.880
4.6520	48.250	56.710	48.010	52.760	47.210
4.6560	47.960	56.160	48.260	50.220	46.850
4.6600	47.970	56.220	48.690	52.840	47.090
4.6640	48.160	56.370	49.270	52.770	47.050
4.6680	46.530	55.690	44.070	48.310	46.960
4.6720	47.990	55.310	46.320	52.700	46.830
4.6760	48.190	55.660	48.290	48.010	47.040
4.6800	48.280	56.040	45.580	48.190	47.540
4.6840	48.110	55.640	46.030	51.190	46.540
4.6880	47.480	56.180	47.810	50.550	47.340
4.6920	47.190	55.600	47.450	46.660	46.960
4.6960	47.060	55.700	48.100	48.280	46.860
4.7000	46.930	56.410	47.340	47.630	46.420
4.7040	45.790	54.890	48.740	48.370	47.390
4.7080	46.920	54.740	47.260	47.390	47.650
4.7120	48.050	54.610	46.890	48.710	46.510
4.7160	45.980	54.560	46.560	47.430	46.020
4.7200	48.090	54.610	46.500	47.390	47.420
4.7240	47.640	54.610	47.160	49.290	46.890
4.7280	48.860	55.270	47.800	47.690	46.510
4.7320	48.070	54.540	45.980	47.900	47.450
4.7360	47.550	54.250	46.870	47.710	47.980
4.7400	48.280	54.600	47.590	48.100	49.170
4.7440	47.690	54.110	46.660	46.750	47.700
4.7480	47.370	54.070	47.410	47.750	47.730
4.7520	46.970	53.630	47.300	48.410	47.400
4.7560	48.540	53.000	47.090	48.280	47.790
4.7600	47.850	53.550	46.590	48.100	47.400
4.7640	47.230	53.300	47.680	46.770	46.730
4.7680	47.270	53.930	47.970	47.290	46.500
4.7720	47.570	53.980	47.710	47.660	47.100
4.7760	48.120	53.140	47.750	48.510	45.570

4.7800	48.300	53.360	47.340	47.480	48.250
4.7840	48.470	53.390	46.690	47.690	47.190
4.7880	47.630	53.780	46.800	48.040	47.530
4.7920	48.800	52.740	48.030	47.050	47.600
4.7960	47.590	52.960	47.210	46.660	46.550
4.8000	46.600	53.160	46.700	47.730	47.530
4.8040	46.720	52.320	47.590	47.200	46.550
4.8080	47.940	52.250	47.410	47.750	46.500
4.8120	48.190	51.780	46.800	48.710	46.620
4.8160	48.090	52.280	47.200	48.240	47.180
4.8200	46.030	51.930	47.250	47.370	47.490
4.8240	47.050	52.850	47.260	47.950	48.280
4.8280	47.460	51.730	47.790	47.650	43.720
4.8320	46.810	52.350	47.280	46.920	46.660
4.8360	44.790	52.040	47.260	46.900	47.250
4.8400	47.980	52.110	48.660	48.180	47.400
4.8440	46.540	52.270	47.990	48.870	46.260
4.8480	47.060	53.180	47.090	48.090	46.630
4.8520	46.630	53.070	47.630	48.390	47.980
4.8560	46.780	52.660	47.440	48.490	46.950
4.8600	46.260	52.640	48.090	47.450	47.610
4.8640	46.170	52.920	46.590	46.830	46.660
4.8680	48.020	53.810	47.760	46.830	46.650
4.8720	48.280	53.540	48.790	47.930	47.610
4.8760	47.870	53.110	48.490	45.740	46.670
4.8800	47.600	53.690	47.450	46.970	47.550
4.8840	47.920	55.050	47.820	46.790	46.230
4.8880	49.230	55.930	47.470	45.290	47.290
4.8920	46.930	55.110	46.070	47.940	47.560
4.8960	47.760	55.400	47.610	47.360	47.480
4.9000	48.840	54.190	49.000	48.040	46.360
4.9040	47.710	54.380	47.810	47.880	47.050
4.9080	47.760	54.290	47.060	47.460	47.280
4.9120	47.560	54.160	47.100	49.440	47.940
4.9160	47.780	54.340	47.060	47.340	47.140
4.9200	47.640	53.930	47.380	48.460	48.020
4.9240	47.920	53.860	47.190	47.720	48.150
4.9280	47.170	53.400	46.950	47.450	48.040
4.9320	47.340	53.750	46.940	47.340	48.490
4.9360	47.570	53.750	46.200	46.840	46.500
4.9400	47.650	53.460	47.180	48.220	46.780
4.9440	47.890	52.740	48.460	47.360	47.570
4.9480	47.050	53.230	47.830	46.720	47.290
4.9520	46.320	53.860	47.940	48.010	47.700
4.9560	47.930	53.490	47.910	47.330	48.110
4.9600	47.990	53.310	47.630	47.560	47.740
4.9640	48.020	53.810	48.460	46.640	47.250
4.9680	47.760	54.080	48.660	46.390	46.110
4.9720	45.770	53.490	47.870	46.410	46.420
4.9760	48.120	53.570	48.090	47.220	46.160
4.9800	47.160	53.420	47.540	47.640	46.350
4.9840	47.110	53.650	48.530	47.760	47.130
4.9880	46.780	53.970	47.560	48.200	47.170
4.9920	47.430	53.890	47.590	48.090	47.770
4.9960	71.250	52.930	47.270	48.490	46.920
5.0000	77.320	52.830	48.060	47.450	47.610
5.0040	71.480	53.610	47.800	46.880	46.770

5.0080	47.690	54.620	47.540	47.000	46.330
5.0120	46.740	53.860	46.930	47.460	48.160
5.0160	47.480	53.170	48.010	47.290	48.750
5.0200	47.410	52.610	47.170	46.760	47.220
5.0240	48.490	52.000	47.540	47.700	48.090
5.0280	47.660	52.060	46.760	46.790	47.210
5.0320	46.880	53.430	46.440	46.430	44.060
5.0360	47.290	52.740	47.120	47.620	47.840
5.0400	47.430	53.410	48.170	47.770	48.320
5.0440	48.020	52.710	48.070	47.930	48.410
5.0480	48.890	53.910	46.350	46.430	47.520
5.0520	47.510	53.500	46.890	47.640	47.060
5.0560	47.640	53.590	46.650	47.580	47.220
5.0600	48.540	53.030	47.620	47.560	48.150
5.0640	49.110	53.450	47.190	47.330	47.120
5.0680	48.370	53.340	47.990	47.460	47.640
5.0720	47.400	52.720	48.130	44.500	47.000
5.0760	47.440	53.370	48.810	47.990	46.890
5.0800	47.580	53.200	48.750	47.840	46.290
5.0840	48.120	52.430	48.180	48.200	47.040
5.0880	47.650	52.990	47.610	47.490	47.010
5.0920	46.810	53.060	47.830	47.520	47.270
5.0960	47.660	52.870	47.080	48.570	44.670
5.1000	47.020	52.650	46.840	48.060	47.060
5.1040	47.730	53.370	47.300	47.270	47.300
5.1080	48.300	53.500	47.970	46.900	47.240
5.1120	47.490	53.900	46.370	47.530	47.790
5.1160	48.300	54.510	45.570	47.240	48.080
5.1200	48.610	54.160	46.210	46.760	47.270
5.1240	47.470	53.440	47.340	47.420	46.860
5.1280	47.920	52.380	47.820	48.080	46.640
5.1320	47.840	52.310	49.240	47.470	45.050
5.1360	47.990	52.800	47.640	47.890	46.910
5.1400	47.820	52.630	47.750	47.580	48.140
5.1440	47.970	52.030	47.880	47.940	47.790
5.1480	47.580	51.720	47.460	47.470	47.800
5.1520	47.940	51.180	46.950	46.820	47.830
5.1560	48.090	51.270	46.900	46.910	46.690
5.1600	48.370	51.140	47.510	48.000	46.450
5.1640	47.230	52.220	47.790	47.410	40.390
5.1680	46.160	51.720	46.980	46.940	46.090
5.1720	46.690	51.340	47.110	47.500	47.860
5.1760	47.970	51.220	48.300	46.940	47.200
5.1800	47.420	51.500	48.040	47.330	47.640
5.1840	47.320	50.760	47.060	46.650	47.530
5.1880	47.270	51.220	48.010	47.380	48.210
5.1920	47.520	51.350	47.380	47.850	47.310
5.1960	46.800	51.820	46.770	46.970	48.050
5.2000	46.580	51.620	46.640	47.480	48.140
5.2040	47.670	51.320	47.180	47.190	47.820
5.2080	47.990	51.390	47.990	47.210	48.170
5.2120	46.940	51.030	47.020	46.420	47.600
5.2160	47.290	51.860	46.850	45.740	47.110
5.2200	47.780	51.150	46.520	46.070	46.950
5.2240	47.020	51.450	46.430	47.190	47.180
5.2280	46.380	52.250	47.680	46.680	47.420
5.2320	47.090	51.340	47.310	46.760	47.670

5.2360	46.840	51.620	47.600	47.410	46.890
5.2400	47.280	52.010	47.750	47.540	44.090
5.2440	47.870	51.480	47.440	47.570	47.360
5.2480	48.260	51.440	43.090	47.540	46.230
5.2520	48.120	52.370	48.270	47.160	47.170
5.2560	46.300	53.050	47.830	47.140	47.740
5.2600	48.360	52.220	46.480	46.280	47.660
5.2640	48.370	53.080	47.000	46.640	47.150
5.2680	47.500	52.730	48.440	47.450	47.560
5.2720	47.570	52.400	47.210	47.020	46.470
5.2760	47.780	52.170	46.790	47.760	46.490
5.2800	47.710	51.320	48.080	47.310	46.840
5.2840	47.400	51.800	48.070	47.180	47.120
5.2880	47.580	52.290	46.820	49.180	47.330
5.2920	47.280	53.410	46.730	49.280	47.790
5.2960	48.170	52.440	46.970	48.770	47.270
5.3000	47.480	52.890	46.870	48.300	48.100
5.3040	46.240	52.250	46.650	47.990	47.840
5.3080	46.180	52.570	47.140	48.150	47.200
5.3120	46.050	52.550	48.610	49.710	46.050
5.3160	48.030	52.510	48.830	50.570	46.780
5.3200	47.580	53.060	47.950	50.510	47.520
5.3240	46.950	53.350	47.920	50.320	45.730
5.3280	47.240	52.500	47.310	50.990	47.450
5.3320	47.800	53.230	47.230	50.150	46.920
5.3360	48.570	53.410	47.420	50.030	47.410
5.3400	47.910	52.750	47.500	50.370	46.820
5.3440	47.270	52.890	46.210	50.160	46.600
5.3480	47.520	52.410	45.620	50.150	47.250
5.3520	47.340	52.300	49.520	51.100	47.370
5.3560	48.050	52.910	47.790	50.480	48.770
5.3600	48.140	53.410	48.070	50.990	48.180
5.3640	47.460	53.240	48.590	50.450	47.620
5.3680	48.530	53.540	47.550	49.690	47.170
5.3720	47.840	53.530	47.130	50.620	47.530
5.3760	47.720	53.590	47.380	50.630	47.750
5.3800	47.690	53.630	47.470	50.940	47.480
5.3840	47.990	53.420	47.470	50.720	47.000
5.3880	48.560	53.860	47.570	50.180	47.160
5.3920	47.890	54.190	47.790	50.760	47.240
5.3960	47.530	54.770	48.290	49.300	47.830
5.4000	47.630	55.060	48.580	50.210	48.460
5.4040	47.890	55.320	47.150	51.000	47.330
5.4080	48.070	56.340	47.610	50.450	47.280
5.4120	48.490	56.400	47.390	50.160	47.270
5.4160	47.790	55.850	45.860	49.370	47.240
5.4200	49.010	56.560	46.720	49.140	47.470
5.4240	47.970	56.310	46.610	48.490	46.200
5.4280	48.150	56.900	47.920	49.770	45.630
5.4320	47.990	57.190	48.380	50.030	47.670
5.4360	48.250	58.550	47.390	51.190	46.400
5.4400	48.360	59.000	48.020	51.980	47.680
5.4440	48.010	59.040	48.420	52.910	47.840
5.4480	48.000	58.020	46.830	54.080	48.760
5.4520	48.630	57.320	47.790	55.350	48.220
5.4560	48.930	57.400	47.320	55.870	48.120
5.4600	47.690	56.640	47.530	56.230	48.160

5.4640	47.430	55.040	46.450	55.350	47.680
5.4680	48.530	55.160	45.770	53.640	48.530
5.4720	47.940	54.000	46.150	52.300	47.640
5.4760	47.500	52.560	48.240	50.730	46.980
5.4800	47.730	51.080	47.630	51.680	47.320
5.4840	47.020	50.270	47.230	51.740	47.640
5.4880	47.300	49.380	46.160	49.910	47.300
5.4920	46.650	49.290	46.590	49.880	46.780
5.4960	47.430	48.720	47.940	48.370	47.560
5.5000	48.180	48.790	47.780	48.170	47.340
5.5040	47.600	48.830	46.330	47.680	48.200
5.5080	46.560	48.310	46.960	47.340	46.750
5.5120	47.300	47.910	47.450	47.470	47.520
5.5160	48.290	48.300	47.010	47.950	47.270
5.5200	47.070	48.130	46.630	48.600	47.490
5.5240	47.840	48.970	47.120	47.390	47.950
5.5280	46.720	49.680	46.550	47.650	47.170
5.5320	47.230	49.320	49.000	46.510	47.630
5.5360	46.880	49.210	48.730	47.090	47.490
5.5400	47.680	48.510	48.250	47.030	48.640
5.5440	47.980	49.330	46.720	48.150	47.480
5.5480	49.010	49.610	48.370	47.520	47.330
5.5520	48.040	49.390	48.290	48.130	47.800
5.5560	47.820	48.810	47.680	48.020	47.010
5.5600	47.610	48.360	46.420	48.020	47.970
5.5640	45.450	48.630	46.950	47.830	48.360
5.5680	48.270	48.770	47.690	47.780	48.100
5.5720	48.930	49.520	48.190	48.280	47.500
5.5760	46.990	49.590	47.360	48.430	45.630
5.5800	46.900	47.640	46.820	47.790	48.070
5.5840	47.480	50.010	47.430	47.490	51.340
5.5880	47.220	50.720	46.950	48.250	49.490
5.5920	47.730	50.500	47.980	48.820	48.530
5.5960	48.420	50.770	48.210	48.970	47.050
5.6000	48.000	50.900	47.870	47.870	47.290
5.6040	47.030	51.450	46.750	47.330	46.670
5.6080	47.660	50.760	47.630	47.650	47.400
5.6120	47.620	50.890	48.230	47.650	47.430
5.6160	47.770	51.140	46.660	47.710	44.210
5.6200	47.610	51.620	47.140	47.060	47.020
5.6240	45.150	51.260	47.490	47.480	47.990
5.6280	46.800	51.970	47.750	47.840	47.870
5.6320	46.370	51.890	48.140	47.220	46.590
5.6360	46.620	51.480	47.940	47.350	46.660
5.6400	46.320	51.480	48.120	47.570	47.020
5.6440	47.650	51.720	48.510	47.170	47.180
5.6480	47.810	52.280	47.450	46.670	47.150
5.6520	47.480	51.270	47.550	46.840	47.290
5.6560	46.450	52.010	47.940	47.130	47.600
5.6600	46.960	52.740	47.490	47.890	47.040
5.6640	47.380	51.700	49.020	47.930	47.340
5.6680	48.340	52.290	47.240	46.800	47.980
5.6720	47.860	53.110	48.310	46.400	47.010
5.6760	47.270	51.860	47.320	46.990	46.840
5.6800	48.000	51.980	46.740	46.890	47.630
5.6840	47.680	51.610	46.890	46.830	47.440
5.6880	47.320	52.050	47.260	47.820	47.780

5.6920	47.450	52.820	48.100	47.810	47.680
5.6960	42.820	53.610	47.770	47.470	48.100
5.7000	46.500	53.430	47.630	48.320	47.390
5.7040	47.700	52.560	47.850	48.010	47.030
5.7080	46.640	53.420	47.670	47.940	47.020
5.7120	47.600	54.420	46.270	47.940	47.160
5.7160	48.310	55.050	45.960	48.320	47.840
5.7200	48.230	55.370	46.890	47.820	47.130
5.7240	47.310	55.140	46.650	48.020	47.650
5.7280	46.640	55.900	47.670	48.070	47.150
5.7320	46.550	57.080	47.860	47.410	46.920
5.7360	46.790	57.370	46.540	47.380	47.220
5.7400	48.140	57.480	46.960	48.250	48.040
5.7440	47.890	58.050	47.710	46.650	47.860
5.7480	47.870	59.030	46.960	48.010	47.660
5.7520	48.090	58.960	47.400	47.850	47.440
5.7560	47.500	60.320	49.300	49.380	46.490
5.7600	47.590	60.510	51.380	51.130	46.980
5.7640	48.640	60.730	49.900	50.180	47.400
5.7680	48.190	59.950	47.260	48.470	48.510
5.7720	49.200	58.400	47.090	48.990	48.170
5.7760	48.410	56.770	47.180	47.930	47.950
5.7800	47.240	56.420	47.060	49.070	48.420
5.7840	46.670	56.050	48.970	48.440	47.950
5.7880	48.020	54.650	48.530	47.790	47.080
5.7920	48.080	53.730	46.820	47.960	48.070
5.7960	48.200	52.230	46.110	48.210	48.950
5.8000	47.990	51.850	46.890	48.120	47.280
5.8040	47.820	52.300	47.510	47.600	47.250
5.8080	47.020	51.200	47.090	48.070	47.890
5.8120	46.920	50.960	47.150	48.050	46.130
5.8160	48.150	49.750	47.710	47.800	47.160
5.8200	46.840	49.490	48.090	47.720	46.230
5.8240	46.900	49.820	47.450	48.080	46.140
5.8280	47.020	48.750	47.410	47.440	46.530
5.8320	46.550	49.060	47.630	48.340	47.070
5.8360	47.120	48.840	47.660	48.210	47.730
5.8400	47.180	49.150	47.250	47.530	47.910
5.8440	46.780	48.010	46.650	47.710	47.600
5.8480	47.240	47.500	47.730	47.810	47.590
5.8520	46.420	48.030	47.420	47.580	47.850
5.8560	47.690	48.450	47.130	48.420	47.000
5.8600	47.730	48.110	47.500	48.730	46.870
5.8640	47.620	48.320	49.530	48.670	47.240
5.8680	46.690	49.030	50.730	48.660	47.910
5.8720	47.890	48.090	54.060	46.990	47.310
5.8760	48.040	46.720	56.650	48.440	47.580
5.8800	47.720	47.430	59.100	48.650	48.510
5.8840	46.580	47.710	59.410	48.710	47.740
5.8880	47.460	47.870	58.700	49.260	46.900
5.8920	47.570	48.340	57.880	48.590	47.160
5.8960	47.210	48.020	55.340	47.760	47.790
5.9000	45.740	48.700	53.830	48.440	47.490
5.9040	47.690	48.840	50.720	48.510	48.010
5.9080	46.920	47.750	48.370	47.770	46.650
5.9120	47.890	47.960	48.350	48.760	47.370
5.9160	47.480	48.470	47.850	49.910	47.250

5.9200	47.510	48.720	49.110	52.090	48.280
5.9240	47.950	48.760	48.690	50.980	47.680
5.9280	46.880	48.920	47.740	50.060	47.930
5.9320	47.320	48.780	46.580	49.270	48.210
5.9360	47.680	48.760	49.060	50.770	48.270
5.9400	48.040	49.130	50.550	53.090	48.060
5.9440	47.170	49.490	48.580	50.810	48.470
5.9480	47.730	49.720	47.290	49.670	48.420
5.9520	47.710	49.930	47.610	50.180	47.710
5.9560	47.820	48.950	49.460	49.380	48.040
5.9600	48.360	49.690	49.260	50.820	47.120
5.9640	47.610	50.140	48.630	51.620	48.400
5.9680	47.100	49.940	47.400	51.430	48.730
5.9720	48.170	49.310	47.850	52.370	48.760
5.9760	48.660	49.980	47.950	52.770	52.450
5.9800	48.910	50.690	50.370	55.030	55.560
5.9840	48.270	50.750	51.490	56.480	61.310
5.9880	48.460	51.140	54.130	59.070	69.170
5.9920	48.530	56.380	58.700	63.490	81.110
5.9960	71.230	102.35	95.470	74.670	129.51
6.0000	77.380	108.53	101.64	80.330	135.68
6.0040	71.460	102.65	95.770	75.230	129.81
6.0080	50.170	56.360	59.600	66.060	81.450
6.0120	49.790	51.720	55.960	62.750	69.390
6.0160	49.370	51.740	52.060	61.270	61.460
6.0200	50.280	52.320	51.220	60.640	55.280
6.0240	48.650	52.460	50.540	58.530	52.720
6.0280	48.970	52.160	49.650	58.360	49.070
6.0320	48.850	53.070	50.490	57.510	49.640
6.0360	47.820	53.860	50.650	58.360	47.980
6.0400	47.570	53.610	50.160	58.440	47.560
6.0440	48.220	53.670	50.090	57.220	47.570
6.0480	47.720	54.090	48.990	55.960	45.920
6.0520	47.150	54.270	48.670	57.480	46.140
6.0560	47.980	53.670	51.030	59.950	47.510
6.0600	49.350	52.070	55.180	62.740	47.520
6.0640	48.390	52.380	51.580	60.230	46.780
6.0680	48.380	51.890	47.840	57.340	46.760
6.0720	48.500	51.560	47.880	56.680	47.550
6.0760	47.960	51.360	51.140	59.430	48.220
6.0800	47.450	50.900	53.870	60.570	48.250
6.0840	47.570	50.290	51.370	56.840	48.350
6.0880	46.970	50.480	52.510	54.180	48.220
6.0920	46.520	49.570	55.320	51.620	48.510
6.0960	48.240	49.640	56.660	50.030	47.090
6.1000	47.240	49.500	60.840	50.430	47.250
6.1040	47.130	49.570	63.480	51.780	47.570
6.1080	46.550	50.440	65.570	52.090	46.800
6.1120	47.820	50.390	66.270	49.650	46.300
6.1160	47.650	49.640	66.240	50.560	46.260
6.1200	47.650	49.610	66.000	51.380	46.270
6.1240	47.270	48.920	63.890	50.400	46.150
6.1280	48.150	50.140	60.800	49.030	47.420
6.1320	48.890	49.460	56.330	49.130	45.710
6.1360	47.680	48.830	53.380	49.230	46.860
6.1400	47.950	50.210	49.890	48.820	46.540
6.1440	47.470	51.760	47.690	47.060	46.670

6.1480	47.540	51.470	47.600	48.910	46.840
6.1520	46.760	50.430	46.730	48.670	46.010
6.1560	46.380	51.150	46.880	49.230	46.620
6.1600	46.790	52.250	47.430	48.500	46.630
6.1640	46.790	53.490	47.330	48.140	45.890
6.1680	47.030	53.050	48.630	47.740	46.540
6.1720	47.590	54.050	49.470	47.910	47.250
6.1760	47.950	55.500	48.690	49.530	47.540
6.1800	47.280	56.570	48.140	49.330	47.720
6.1840	48.270	56.350	47.630	48.630	47.890
6.1880	48.220	57.620	47.850	48.110	47.100
6.1920	48.040	57.440	47.330	48.140	46.900
6.1960	47.880	57.940	48.740	47.090	47.440
6.2000	48.470	58.980	48.470	48.500	47.080
6.2040	48.430	59.470	47.570	47.030	47.610
6.2080	48.300	60.740	48.240	47.080	48.220
6.2120	47.500	61.420	46.990	47.370	47.550
6.2160	48.530	61.680	46.330	48.050	47.430
6.2200	48.150	61.130	48.170	46.670	46.300
6.2240	47.830	61.390	47.520	47.910	46.600
6.2280	48.150	62.080	47.540	48.460	48.100
6.2320	47.690	63.050	47.360	48.430	46.860
6.2360	47.770	63.260	47.610	48.340	46.620
6.2400	47.460	63.790	48.290	49.460	47.570
6.2440	48.210	62.800	47.600	47.780	47.400
6.2480	49.170	62.340	47.950	47.540	46.740
6.2520	48.880	62.170	47.850	48.610	46.260
6.2560	48.620	61.940	48.550	48.880	47.440
6.2600	47.570	61.530	47.240	48.850	47.060
6.2640	48.130	61.660	47.760	47.310	47.280
6.2680	47.680	61.610	47.470	47.070	47.460
6.2720	48.110	61.310	47.620	46.670	47.720
6.2760	48.650	61.050	47.010	47.820	46.710
6.2800	48.110	60.700	47.430	48.190	47.320
6.2840	48.010	60.270	47.830	48.400	48.210
6.2880	48.280	60.260	47.910	48.170	48.370
6.2920	48.540	59.010	47.040	48.100	48.260
6.2960	47.690	58.040	47.390	47.540	47.610
6.3000	47.900	57.230	47.720	48.780	48.370
6.3040	48.150	56.650	47.000	48.780	47.170
6.3080	47.520	55.720	46.750	47.210	47.850
6.3120	47.060	56.000	45.640	47.880	45.670
6.3160	46.740	56.150	46.710	47.240	47.280
6.3200	48.120	54.250	47.350	48.140	47.600
6.3240	48.510	53.430	47.780	47.800	46.950
6.3280	48.060	53.400	47.290	47.680	47.130
6.3320	46.970	53.040	47.470	47.820	47.610
6.3360	47.500	52.980	48.000	47.740	47.220
6.3400	46.920	53.190	47.360	46.960	47.670
6.3440	47.170	53.320	46.940	46.790	47.650
6.3480	47.040	53.250	46.100	45.970	47.250
6.3520	47.330	53.020	47.490	47.090	45.650
6.3560	47.540	51.600	47.630	47.390	47.140
6.3600	48.000	50.530	47.550	47.910	46.190
6.3640	47.260	50.840	46.300	48.770	47.570
6.3680	47.190	50.130	46.830	47.070	45.750
6.3720	47.080	50.580	47.030	47.000	46.400

6.3760	47.740	50.000	46.700	46.810	46.890
6.3800	48.340	51.200	46.940	47.020	47.550
6.3840	47.850	50.780	47.080	47.060	46.600
6.3880	46.830	50.530	47.730	46.750	45.870
6.3920	47.800	50.410	47.370	47.120	46.550
6.3960	47.610	51.380	46.200	47.460	47.530
6.4000	47.980	51.910	46.690	47.390	47.140

## SPLi [Nominal 150 dB Spectra]

Frequency [kHz]	1 KHz [dB]	2 KHz [dB]	3 KHz [dB]	4 KHz [dB]	6 KHz [dB]
0.0040000	90.170	97.650	96.210	98.620	111.10
0.0080000	90.590	95.900	80.260	57.860	99.490
0.012000	90.220	94.880	77.050	55.210	87.180
0.016000	89.710	94.920	75.480	51.160	80.370
0.020000	88.880	93.560	75.510	50.180	73.940
0.024000	87.100	93.500	75.350	49.230	70.070
0.028000	86.960	92.660	75.360	49.530	66.520
0.032000	87.530	91.520	75.030	49.680	64.010
0.036000	86.910	91.700	73.420	49.740	59.970
0.040000	85.250	91.120	73.230	49.020	55.840
0.044000	84.740	89.680	72.960	48.890	53.490
0.048000	85.000	89.420	71.960	50.340	52.690
0.052000	84.260	88.970	72.260	52.310	54.110
0.056000	84.010	89.150	72.710	55.830	57.300
0.060000	83.960	89.230	71.850	58.610	58.060
0.064000	83.530	88.440	70.560	54.520	52.840
0.068000	83.480	88.020	70.310	50.940	50.210
0.072000	83.360	87.750	70.430	50.300	49.170
0.076000	82.210	87.440	70.170	53.710	51.860
0.080000	81.900	87.300	67.830	56.650	55.770
0.084000	81.950	86.440	67.920	53.180	50.980
0.088000	82.930	86.410	68.560	50.640	49.190
0.092000	82.100	85.260	68.900	49.820	48.710
0.096000	80.030	84.710	67.040	51.360	49.090
0.10000	80.290	85.780	66.190	51.480	49.090
0.10400	81.400	85.240	66.370	52.520	48.760
0.10800	79.950	84.450	66.470	58.590	56.920
0.11200	79.280	84.230	65.180	58.630	58.290
0.11600	77.640	84.280	64.970	53.640	49.930
0.12000	77.510	83.880	65.180	54.040	50.370
0.12400	77.730	84.110	64.900	54.420	49.300
0.12800	77.250	83.500	65.530	54.640	49.120
0.13200	77.380	82.300	65.380	56.080	48.590
0.13600	77.760	82.270	63.760	56.310	48.550
0.14000	77.180	82.530	63.570	56.200	48.550
0.14400	76.820	82.630	63.870	55.380	48.720
0.14800	76.860	82.200	63.900	56.850	49.120
0.15200	76.640	82.020	64.440	56.510	48.620
0.15600	76.750	82.910	63.170	57.050	48.930
0.16000	76.160	81.620	64.210	58.500	51.030
0.16400	76.660	82.440	64.800	60.770	58.170
0.16800	76.890	83.160	65.120	61.570	57.140
0.17200	76.440	83.260	65.450	60.480	50.710
0.17600	76.660	82.090	66.130	63.110	62.060
0.18000	77.230	82.040	67.230	71.620	68.040
0.18400	76.490	83.090	66.310	63.730	62.210
0.18800	77.230	82.710	66.640	64.480	51.070
0.19200	77.710	83.080	68.050	63.270	49.960
0.19600	77.430	83.600	68.440	65.560	50.530
0.20000	77.990	82.980	68.140	66.320	50.730
0.20400	78.420	83.310	69.320	62.790	51.910
0.20800	78.840	83.040	69.690	65.970	51.550
0.21200	78.920	82.980	69.940	65.230	51.740
0.21600	81.200	83.700	69.700	64.850	58.420

0.22000	80.310	85.010	70.170	67.290	66.490
0.22400	79.520	84.290	71.340	67.090	62.780
0.22800	80.150	84.740	70.560	65.430	50.710
0.23200	80.320	84.180	70.100	65.060	49.800
0.23600	80.870	83.270	73.440	68.370	64.020
0.24000	79.600	83.120	73.200	69.180	69.220
0.24400	79.110	83.680	71.770	65.180	62.660
0.24800	78.390	83.130	72.490	62.730	47.870
0.25200	77.660	82.550	67.390	63.280	49.540
0.25600	78.370	81.730	70.180	62.480	48.340
0.26000	79.990	81.910	70.360	61.780	48.590
0.26400	78.130	81.980	70.560	62.130	49.640
0.26800	77.910	81.770	69.900	55.220	49.300
0.27200	78.210	82.250	71.880	62.940	52.580
0.27600	78.440	81.560	70.610	62.310	57.130
0.28000	76.890	80.710	70.400	60.440	52.120
0.28400	79.480	81.630	70.700	61.990	48.760
0.28800	76.520	81.330	70.130	60.870	48.640
0.29200	75.270	79.360	68.490	59.390	48.610
0.29600	75.230	79.420	69.070	63.060	61.830
0.30000	75.560	79.710	70.790	66.280	67.760
0.30400	75.050	79.070	67.900	63.530	62.110
0.30800	74.780	77.710	67.440	59.710	48.900
0.31200	74.280	78.190	66.730	60.390	47.760
0.31600	73.410	77.760	66.610	58.830	48.820
0.32000	73.770	77.110	66.540	59.390	48.980
0.32400	73.790	77.470	66.630	59.020	48.260
0.32800	72.760	76.990	64.780	59.440	52.020
0.33200	72.010	77.160	65.720	59.800	54.680
0.33600	72.540	76.600	65.870	59.190	49.500
0.34000	72.520	76.910	65.450	58.600	47.450
0.34400	71.300	77.610	64.000	57.370	47.530
0.34800	71.450	76.690	63.590	56.960	46.830
0.35200	71.040	75.340	63.640	57.420	47.100
0.35600	71.380	75.440	63.860	58.160	51.700
0.36000	71.660	76.170	63.850	58.410	56.040
0.36400	71.330	76.780	64.050	56.900	52.580
0.36800	69.860	74.900	62.440	56.880	47.450
0.37200	69.610	75.570	63.100	55.520	47.580
0.37600	69.790	74.510	62.140	55.900	48.160
0.38000	69.810	74.440	60.320	56.060	47.680
0.38400	69.260	74.830	61.340	55.810	49.300
0.38800	68.560	74.900	61.960	55.750	50.340
0.39200	68.560	73.960	63.360	55.880	47.020
0.39600	67.850	74.190	64.780	59.110	57.370
0.40000	68.240	74.050	62.390	59.520	59.480
0.40400	68.050	75.030	61.450	54.620	53.190
0.40800	68.070	75.220	61.560	55.400	48.200
0.41200	68.380	74.390	61.020	55.800	48.120
0.41600	67.350	73.910	62.850	62.000	61.120
0.42000	69.030	75.210	65.600	64.170	67.330
0.42400	69.890	73.970	62.490	60.620	60.670
0.42800	68.080	73.300	60.620	56.650	49.090
0.43200	69.100	73.140	60.510	56.940	46.180
0.43600	69.470	73.190	60.320	58.110	52.750
0.44000	69.640	72.500	60.610	59.000	62.100
0.44400	68.960	73.410	61.350	59.200	60.360

0.44800	70.920	74.800	61.160	61.710	49.440
0.45200	69.110	75.370	62.840	61.920	50.360
0.45600	69.980	73.190	62.890	59.790	48.960
0.46000	70.760	75.440	64.080	61.450	47.450
0.46400	70.980	76.060	64.200	61.350	47.910
0.46800	70.230	75.260	64.800	61.830	47.880
0.47200	70.550	75.420	65.370	62.650	48.360
0.47600	72.220	76.240	65.660	63.060	54.510
0.48000	73.210	76.900	68.130	63.760	59.560
0.48400	73.930	77.630	68.320	63.970	54.650
0.48800	81.420	77.190	68.400	64.430	48.530
0.49200	84.280	78.050	69.490	65.700	48.300
0.49600	73.230	78.190	69.290	65.780	50.110
0.50000	75.010	77.990	68.830	66.300	49.050
0.50400	75.720	78.350	69.480	66.850	48.640
0.50800	77.650	79.110	70.470	66.180	48.760
0.51200	77.240	79.400	71.180	66.670	48.160
0.51600	77.280	80.540	70.690	66.910	48.420
0.52000	77.100	80.980	71.780	65.840	48.110
0.52400	76.950	81.690	72.750	66.480	47.780
0.52800	77.770	81.680	73.800	67.070	48.880
0.53200	77.920	80.940	73.480	67.680	50.480
0.53600	78.570	81.980	73.500	67.820	60.420
0.54000	79.060	82.080	74.960	69.630	66.250
0.54400	78.910	80.050	73.330	67.590	60.510
0.54800	78.350	81.550	72.250	65.590	47.940
0.55200	78.870	82.710	73.820	65.940	49.070
0.55600	78.460	82.400	74.190	67.100	57.630
0.56000	79.140	82.150	73.500	65.670	61.570
0.56400	79.790	85.590	73.280	65.810	53.580
0.56800	79.320	81.620	73.760	65.970	46.900
0.57200	78.560	81.570	74.380	66.900	47.820
0.57600	78.470	82.090	73.830	67.140	47.280
0.58000	79.350	81.410	72.840	66.000	47.640
0.58400	78.510	79.740	72.500	66.330	48.100
0.58800	77.890	79.780	73.480	65.550	47.470
0.59200	77.630	79.390	73.650	65.070	47.050
0.59600	77.000	84.170	72.390	66.560	47.230
0.60000	78.730	82.100	72.630	65.820	50.140
0.60400	78.320	81.270	72.480	65.010	49.560
0.60800	76.890	80.330	72.530	65.270	47.410
0.61200	77.940	71.640	71.270	65.300	48.560
0.61600	78.220	70.350	71.860	65.360	48.350
0.62000	77.250	79.780	71.720	65.130	47.940
0.62400	76.940	80.970	71.440	65.650	47.260
0.62800	76.080	79.730	72.000	66.060	46.480
0.63200	74.250	79.780	71.490	66.030	48.720
0.63600	75.470	79.550	71.240	64.670	48.610
0.64000	75.930	79.120	70.920	64.320	48.880
0.64400	76.280	78.800	70.590	65.540	48.010
0.64800	75.190	78.650	69.890	64.630	47.270
0.65200	74.590	78.640	70.070	64.580	47.160
0.65600	74.730	77.990	69.970	64.610	48.030
0.66000	75.180	77.910	69.840	64.910	53.870
0.66400	75.180	78.010	70.140	65.060	49.790
0.66800	74.900	78.830	70.050	64.290	46.950
0.67200	74.130	77.890	69.360	64.620	47.120

0.67600	77.090	77.350	68.940	64.810	46.390
0.68000	74.730	77.940	68.480	64.830	47.230
0.68400	74.170	78.020	68.060	63.850	47.280
0.68800	74.520	77.020	68.850	62.940	46.990
0.69200	73.740	76.450	69.090	63.700	47.270
0.69600	72.940	77.470	68.900	64.480	47.720
0.70000	72.930	76.220	68.080	64.430	47.040
0.70400	73.230	76.580	67.220	64.710	46.880
0.70800	73.610	76.450	67.800	64.210	47.340
0.71200	71.740	75.080	67.640	63.940	47.420
0.71600	72.190	74.080	67.380	64.880	49.050
0.72000	72.590	75.350	67.640	64.700	50.180
0.72400	72.150	75.930	68.330	64.160	47.430
0.72800	71.360	77.140	67.420	64.460	47.070
0.73200	70.990	75.450	67.150	64.320	46.910
0.73600	71.990	74.670	66.750	64.040	47.760
0.74000	71.410	74.710	67.590	63.490	47.340
0.74400	71.780	74.320	66.020	62.720	46.160
0.74800	70.880	74.300	66.020	63.180	46.680
0.75200	70.150	74.700	66.780	63.600	47.740
0.75600	69.820	74.440	66.250	63.000	48.620
0.76000	71.130	73.540	65.490	63.040	47.090
0.76400	71.120	72.950	65.730	63.190	46.090
0.76800	71.110	74.380	64.670	63.020	46.610
0.77200	70.540	74.240	65.050	63.110	48.020
0.77600	70.650	73.940	64.470	63.920	47.450
0.78000	70.050	73.810	65.310	64.730	50.650
0.78400	69.980	73.770	65.310	62.670	48.220
0.78800	69.980	73.810	63.620	62.770	47.120
0.79200	70.420	73.810	64.190	62.310	47.540
0.79600	70.630	72.980	64.310	62.790	47.970
0.80000	70.260	72.630	63.040	62.100	47.770
0.80400	70.350	71.710	63.850	61.930	46.890
0.80800	70.490	72.490	63.980	61.280	46.500
0.81200	69.450	73.150	64.160	61.060	46.710
0.81600	69.390	73.000	65.410	61.520	46.990
0.82000	69.720	72.300	64.410	61.760	46.300
0.82400	70.450	73.170	63.900	62.150	47.010
0.82800	70.220	73.280	64.250	62.740	46.850
0.83200	70.210	72.840	64.600	62.650	47.510
0.83600	71.800	73.120	65.340	61.590	47.170
0.84000	72.530	73.760	66.420	61.110	47.980
0.84400	72.310	74.590	66.830	61.860	46.890
0.84800	72.320	75.200	67.100	62.460	47.420
0.85200	72.630	75.060	67.790	62.840	46.600
0.85600	73.300	75.410	67.850	63.090	46.830
0.86000	73.330	75.660	67.510	63.440	46.730
0.86400	73.940	76.570	68.600	63.950	47.540
0.86800	74.670	77.380	68.370	64.600	47.650
0.87200	75.940	77.630	68.950	64.060	47.030
0.87600	76.520	78.160	70.150	63.750	46.470
0.88000	76.540	78.870	70.470	63.590	48.230
0.88400	76.440	79.130	70.860	65.170	47.400
0.88800	75.780	78.680	70.850	65.400	48.220
0.89200	76.350	78.450	71.620	64.540	47.090
0.89600	76.960	79.340	71.730	66.300	49.120
0.90000	77.940	79.510	70.690	65.600	51.750

0.90400	77.520	80.400	70.160	66.230	49.780
0.90800	77.420	80.230	71.150	67.070	47.300
0.91200	78.250	80.640	72.160	67.420	47.400
0.91600	78.960	80.960	73.230	67.450	46.860
0.92000	79.170	80.490	73.420	66.980	47.970
0.92400	78.910	80.280	72.610	67.100	47.780
0.92800	79.440	81.540	72.490	67.140	47.350
0.93200	80.080	81.300	72.300	66.820	47.270
0.93600	80.090	81.530	71.760	66.960	47.480
0.94000	80.810	80.490	71.890	67.390	46.630
0.94400	80.810	79.450	72.060	68.720	45.900
0.94800	80.830	80.000	72.050	67.820	47.010
0.95200	81.760	79.880	72.290	66.890	46.880
0.95600	78.610	80.570	72.160	67.600	47.810
0.96000	82.480	81.150	72.690	67.780	48.050
0.96400	82.540	80.580	72.380	68.010	47.650
0.96800	82.890	80.680	72.300	67.800	47.590
0.97200	82.460	80.950	72.470	68.030	47.560
0.97600	82.680	79.280	71.490	67.560	47.090
0.98000	85.530	79.030	70.820	67.930	47.450
0.98400	87.620	79.270	71.810	68.000	48.030
0.98800	87.920	79.050	71.420	68.100	47.730
0.99200	88.740	80.130	70.350	68.010	47.050
0.99600	148.29	80.010	71.460	67.820	47.160
1.0000	154.32	79.870	71.350	68.830	47.080
1.0040	148.31	78.970	71.090	68.900	48.250
1.0080	87.300	78.210	71.010	68.720	47.640
1.0120	86.160	79.110	71.630	68.150	46.350
1.0160	86.090	79.150	71.320	68.130	49.380
1.0200	83.830	78.300	71.070	67.750	53.170
1.0240	81.600	77.590	70.270	68.020	50.560
1.0280	81.550	78.760	69.810	68.520	46.690
1.0320	81.510	77.790	70.510	68.550	47.590
1.0360	81.370	76.970	70.650	68.710	47.750
1.0400	80.990	78.020	70.400	68.390	49.590
1.0440	80.630	78.730	70.130	68.400	47.240
1.0480	80.800	81.190	70.330	68.240	47.840
1.0520	79.410	73.880	70.100	67.650	48.020
1.0560	78.870	77.540	69.480	67.280	47.320
1.0600	77.840	77.200	69.550	68.250	46.960
1.0640	78.450	76.420	71.090	68.320	46.780
1.0680	78.530	66.260	70.340	68.520	48.430
1.0720	76.590	76.730	68.600	67.480	48.480
1.0760	75.940	76.830	68.680	67.780	47.560
1.0800	77.190	77.670	68.230	67.070	49.200
1.0840	78.640	77.160	68.140	67.090	47.180
1.0880	76.180	76.970	68.230	66.810	48.020
1.0920	76.940	76.970	68.860	67.410	49.010
1.0960	76.780	77.330	68.670	67.050	47.830
1.1000	74.620	76.930	68.460	67.230	47.640
1.1040	74.830	76.450	68.190	66.670	48.130
1.1080	75.220	76.730	68.440	66.480	46.800
1.1120	74.010	76.080	67.970	66.800	47.620
1.1160	74.890	75.700	67.670	66.600	47.620
1.1200	74.560	75.710	68.190	65.910	47.730
1.1240	73.800	75.960	67.620	65.450	47.320
1.1280	73.390	75.980	67.180	65.760	47.090

1.1320	74.360	75.440	67.090	64.850	46.400
1.1360	73.570	74.160	67.660	63.970	48.910
1.1400	73.550	74.910	67.260	65.130	56.240
1.1440	73.400	74.650	66.430	64.970	48.630
1.1480	72.500	75.020	66.500	64.120	47.590
1.1520	71.500	74.310	65.520	63.940	48.880
1.1560	72.770	73.940	65.670	63.510	47.680
1.1600	73.350	73.770	66.310	63.090	46.730
1.1640	72.970	73.800	65.960	62.480	46.490
1.1680	72.360	73.900	65.370	61.530	47.260
1.1720	72.010	73.430	65.320	61.480	47.500
1.1760	72.400	74.550	64.750	61.700	47.160
1.1800	72.270	73.100	64.750	61.330	46.090
1.1840	71.360	72.480	64.240	61.310	46.070
1.1880	71.780	73.680	64.280	59.860	47.270
1.1920	70.970	73.920	64.420	59.380	47.810
1.1960	71.620	74.100	65.100	60.760	49.720
1.2000	71.200	74.270	66.040	60.270	50.930
1.2040	71.310	72.820	64.250	59.420	46.750
1.2080	70.820	72.710	64.100	59.160	46.430
1.2120	70.620	73.080	65.800	58.910	46.810
1.2160	71.190	74.520	65.100	59.640	46.550
1.2200	71.260	75.180	66.450	59.950	47.790
1.2240	71.160	74.610	66.670	60.180	46.860
1.2280	72.240	75.070	66.610	60.190	46.250
1.2320	72.790	75.320	67.170	61.670	47.460
1.2360	73.230	76.650	67.130	61.860	46.510
1.2400	73.990	76.810	67.950	61.500	46.610
1.2440	73.550	77.270	68.550	61.650	46.480
1.2480	73.610	77.600	69.790	62.240	47.400
1.2520	74.280	78.180	68.980	64.050	46.940
1.2560	75.150	79.130	69.550	63.780	49.850
1.2600	75.430	78.620	70.730	63.960	54.520
1.2640	75.500	79.390	70.990	65.430	47.340
1.2680	75.220	79.640	70.590	66.330	47.360
1.2720	75.000	79.690	70.170	66.350	46.690
1.2760	75.670	80.740	70.040	66.090	47.250
1.2800	75.670	79.690	70.790	66.500	48.480
1.2840	75.740	79.500	71.120	66.120	47.530
1.2880	75.210	78.990	71.010	66.530	48.600
1.2920	75.460	79.530	71.570	67.000	48.850
1.2960	76.490	79.510	70.780	67.650	48.320
1.3000	75.080	78.310	69.990	67.990	46.540
1.3040	75.600	79.140	70.280	68.020	47.810
1.3080	75.230	79.410	70.680	68.840	48.250
1.3120	74.610	79.450	69.520	69.160	47.130
1.3160	74.830	79.740	70.620	70.010	47.470
1.3200	75.640	78.460	70.690	70.260	49.820
1.3240	75.670	77.930	70.770	69.830	48.960
1.3280	75.270	77.720	70.900	68.870	46.480
1.3320	75.670	78.560	70.420	68.320	47.040
1.3360	74.880	78.480	70.710	69.220	48.110
1.3400	74.890	79.020	70.730	69.560	47.720
1.3440	74.820	78.150	70.220	69.010	47.600
1.3480	75.780	77.840	69.830	68.010	48.770
1.3520	75.250	78.850	70.060	68.370	48.130
1.3560	74.920	79.780	70.350	68.850	51.020

1.3600	75.040	79.710	70.980	68.620	49.560
1.3640	75.460	79.370	71.630	67.960	48.720
1.3680	74.740	77.940	70.940	68.080	47.630
1.3720	74.500	78.070	71.070	67.570	46.820
1.3760	74.610	77.940	70.620	68.320	56.230
1.3800	74.700	78.810	70.430	68.150	62.760
1.3840	74.140	78.680	69.890	68.400	57.970
1.3880	74.860	77.980	70.100	68.420	50.020
1.3920	74.080	77.090	69.830	68.290	47.350
1.3960	74.630	76.500	69.970	67.900	47.840
1.4000	74.380	77.980	70.010	68.080	47.710
1.4040	73.550	77.550	70.500	67.690	48.170
1.4080	74.330	77.920	70.750	67.590	47.770
1.4120	74.280	77.720	69.980	67.580	43.950
1.4160	73.440	77.810	69.790	67.240	47.760
1.4200	73.910	78.620	69.710	67.150	48.300
1.4240	73.740	77.960	69.250	66.680	48.110
1.4280	73.410	78.230	69.240	66.970	47.870
1.4320	74.250	78.820	69.740	66.390	48.210
1.4360	75.170	78.500	69.360	65.780	49.360
1.4400	74.590	77.250	69.560	66.490	48.450
1.4440	72.980	76.750	70.000	66.670	47.180
1.4480	72.230	77.640	69.870	66.710	48.050
1.4520	72.820	77.750	69.900	66.050	47.230
1.4560	73.400	78.610	70.240	66.260	47.200
1.4600	72.900	77.800	69.920	65.140	47.380
1.4640	73.910	77.440	69.870	64.950	47.390
1.4680	73.550	77.400	69.770	65.500	47.820
1.4720	73.190	77.450	69.680	64.330	47.390
1.4760	74.060	77.760	69.650	63.570	47.320
1.4800	74.790	77.430	69.550	64.420	47.130
1.4840	73.590	77.780	69.120	65.730	47.330
1.4880	73.030	78.720	68.670	65.530	46.230
1.4920	73.440	77.950	68.970	64.880	47.090
1.4960	72.810	76.820	69.350	64.180	46.440
1.5000	73.070	76.770	68.660	64.000	54.580
1.5040	72.400	77.110	68.250	63.780	48.150
1.5080	75.920	76.790	68.210	63.320	46.480
1.5120	75.190	77.500	67.850	62.700	46.560
1.5160	72.400	78.450	67.350	62.990	44.300
1.5200	72.470	78.790	68.090	62.550	48.150
1.5240	72.330	76.970	68.190	62.620	47.530
1.5280	71.960	76.790	67.940	63.180	46.940
1.5320	71.470	75.980	68.170	62.370	46.290
1.5360	71.180	76.160	67.660	62.310	46.630
1.5400	72.260	76.280	68.020	62.780	46.740
1.5440	71.960	75.980	67.780	61.760	47.890
1.5480	70.670	76.500	67.980	61.280	47.010
1.5520	70.570	76.640	68.330	61.440	46.690
1.5560	70.910	76.420	68.220	62.190	47.710
1.5600	71.460	75.290	67.840	62.210	48.310
1.5640	71.290	75.500	68.290	62.500	47.270
1.5680	70.490	75.840	68.190	62.080	46.980
1.5720	71.250	76.370	66.930	60.930	48.490
1.5760	71.920	77.850	67.500	61.650	46.670
1.5800	72.200	77.270	67.520	61.430	46.600
1.5840	71.860	76.170	66.940	61.130	47.680

1.5880	72.800	76.140	67.300	62.950	47.390
1.5920	72.960	76.850	68.270	62.940	47.960
1.5960	71.770	76.810	67.850	63.970	48.400
1.6000	72.210	76.890	68.480	63.540	48.520
1.6040	72.440	76.380	68.280	63.020	47.600
1.6080	71.450	76.350	67.840	62.430	47.360
1.6120	71.790	77.350	68.240	64.130	47.200
1.6160	72.610	77.010	67.320	63.950	50.610
1.6200	73.030	77.410	68.340	64.120	55.060
1.6240	73.370	76.860	67.800	64.350	51.140
1.6280	73.240	76.570	67.400	64.100	47.240
1.6320	72.450	76.800	67.550	64.320	46.870
1.6360	72.720	76.760	68.010	64.630	48.140
1.6400	72.860	76.710	67.920	65.210	46.150
1.6440	73.440	77.520	67.770	64.730	46.000
1.6480	73.350	77.480	68.560	64.080	47.380
1.6520	72.520	76.530	68.600	64.780	47.300
1.6560	72.330	76.840	68.890	65.850	47.380
1.6600	72.820	77.340	69.490	65.920	47.930
1.6640	73.370	77.680	68.410	64.820	47.820
1.6680	73.220	77.580	68.370	64.900	47.380
1.6720	72.530	77.460	68.470	64.750	47.530
1.6760	72.650	76.980	68.840	65.150	47.570
1.6800	72.980	77.560	68.690	65.800	47.930
1.6840	71.950	77.630	67.940	65.190	47.230
1.6880	72.310	77.080	68.010	64.550	47.410
1.6920	72.820	78.260	68.240	64.450	48.180
1.6960	73.410	77.550	68.400	64.850	47.430
1.7000	73.530	77.000	68.650	64.840	46.490
1.7040	73.220	77.220	68.730	63.870	47.950
1.7080	73.260	78.150	68.740	64.020	46.670
1.7120	73.540	77.340	69.050	64.320	46.900
1.7160	74.140	77.620	69.720	64.890	47.410
1.7200	74.130	77.900	68.950	65.320	47.700
1.7240	73.960	76.730	69.360	64.580	45.810
1.7280	73.110	79.390	69.870	64.290	46.230
1.7320	74.320	78.910	68.910	64.710	47.350
1.7360	73.570	80.060	69.030	64.440	47.160
1.7400	73.140	78.610	69.000	64.860	48.060
1.7440	73.290	79.420	70.140	64.760	48.210
1.7480	73.580	79.610	69.740	64.370	47.340
1.7520	73.990	79.430	69.410	64.530	46.570
1.7560	74.060	79.560	69.630	64.580	46.790
1.7600	73.760	79.540	69.060	64.390	47.530
1.7640	74.020	79.040	69.400	63.860	46.960
1.7680	73.300	78.080	70.110	64.360	46.890
1.7720	74.020	79.270	70.050	64.340	47.240
1.7760	73.570	79.280	69.560	63.710	46.950
1.7800	73.690	78.160	68.950	64.630	47.060
1.7840	73.740	79.200	68.840	64.670	46.750
1.7880	73.520	79.190	69.020	63.830	46.900
1.7920	74.080	78.940	69.480	64.170	46.760
1.7960	73.910	56.820	69.560	64.230	46.840
1.8000	74.180	76.090	69.930	64.450	47.850
1.8040	73.960	79.530	69.600	64.160	47.470
1.8080	72.930	80.080	70.150	63.860	47.080
1.8120	73.020	79.860	69.770	63.890	47.460

1.8160	73.610	79.520	70.090	64.250	47.160
1.8200	74.230	79.810	70.310	65.050	46.980
1.8240	75.050	80.270	69.750	65.520	47.980
1.8280	74.870	79.600	69.750	64.670	47.440
1.8320	75.560	80.160	69.900	64.520	46.980
1.8360	75.440	80.570	71.550	64.060	48.510
1.8400	74.800	80.930	70.550	64.120	47.740
1.8440	75.460	81.950	70.280	63.790	47.450
1.8480	75.330	82.410	70.640	63.610	47.230
1.8520	75.670	81.790	70.350	63.680	47.120
1.8560	76.150	82.120	69.080	63.270	51.240
1.8600	74.590	82.400	71.090	63.220	51.000
1.8640	75.270	81.470	71.050	63.630	47.920
1.8680	75.990	80.850	70.600	63.180	48.260
1.8720	75.570	81.160	71.540	63.670	46.340
1.8760	75.580	82.500	71.300	64.150	46.520
1.8800	76.590	82.210	69.730	63.990	46.740
1.8840	75.870	81.500	70.140	64.300	46.880
1.8880	76.070	81.810	70.180	64.360	47.100
1.8920	75.990	81.930	69.180	64.400	47.500
1.8960	76.260	81.690	69.520	63.760	47.210
1.9000	76.300	82.140	69.510	64.210	46.890
1.9040	75.430	82.590	69.920	63.980	47.060
1.9080	76.020	82.370	69.730	64.460	46.720
1.9120	76.350	83.370	70.160	64.000	46.800
1.9160	75.570	83.670	70.780	63.260	46.920
1.9200	76.060	83.540	71.210	63.750	47.570
1.9240	76.460	83.590	70.160	63.400	47.770
1.9280	75.970	83.890	70.120	62.720	47.330
1.9320	76.830	83.870	70.390	62.600	47.100
1.9360	77.280	83.330	70.850	63.220	46.560
1.9400	77.160	84.600	70.760	63.600	46.250
1.9440	76.820	85.230	70.820	63.180	46.670
1.9480	77.400	84.490	69.910	64.270	47.030
1.9520	78.240	85.320	70.050	64.420	47.420
1.9560	77.550	85.300	69.260	62.420	47.140
1.9600	78.020	86.120	69.330	62.420	48.000
1.9640	77.880	87.040	68.730	62.810	47.980
1.9680	78.000	87.180	69.780	63.180	47.140
1.9720	78.420	87.900	69.690	62.410	46.880
1.9760	77.710	88.830	68.500	61.820	46.640
1.9800	78.640	89.580	68.480	61.970	46.420
1.9840	80.230	90.690	68.350	62.310	45.980
1.9880	81.330	92.080	68.280	62.080	46.720
1.9920	82.010	92.960	68.060	62.850	47.400
1.9960	125.16	147.84	68.030	62.620	47.040
2.0000	131.20	153.89	68.550	61.690	46.900
2.0040	125.20	147.90	67.530	60.930	47.100
2.0080	80.440	93.420	66.710	61.170	46.810
2.0120	79.680	92.990	66.650	61.420	47.350
2.0160	78.350	90.260	67.280	61.380	46.270
2.0200	76.200	90.670	67.120	61.100	46.970
2.0240	74.810	90.390	66.720	60.860	47.740
2.0280	74.480	89.940	66.040	61.220	47.000
2.0320	73.870	89.380	65.980	60.850	47.010
2.0360	74.530	88.800	66.480	60.370	45.030
2.0400	73.650	88.370	66.260	60.640	46.300

2.0440	72.840	88.050	64.890	60.900	46.990
2.0480	72.790	87.190	64.340	60.740	46.840
2.0520	71.960	85.950	65.060	60.410	47.480
2.0560	71.800	86.230	65.750	60.460	47.060
2.0600	72.470	85.980	65.810	61.380	47.160
2.0640	72.900	85.790	65.670	60.440	47.390
2.0680	73.300	85.200	66.600	60.420	46.470
2.0720	73.080	84.170	66.700	60.700	47.630
2.0760	73.460	83.300	67.550	60.140	47.360
2.0800	73.830	83.560	67.230	59.650	46.340
2.0840	72.830	83.240	66.870	61.050	47.060
2.0880	73.350	83.010	66.570	60.710	46.530
2.0920	73.100	82.860	66.540	59.850	46.720
2.0960	73.600	82.690	67.280	60.610	47.440
2.1000	73.750	81.870	67.950	61.280	47.550
2.1040	73.500	81.760	67.730	61.860	47.990
2.1080	74.430	82.830	68.050	62.240	47.490
2.1120	74.520	82.750	68.190	61.600	46.910
2.1160	74.030	82.600	67.690	61.300	47.060
2.1200	73.920	82.610	68.940	61.980	47.030
2.1240	73.900	82.110	69.650	62.240	46.760
2.1280	73.590	81.190	70.060	61.440	46.450
2.1320	74.410	81.550	69.800	61.370	45.850
2.1360	74.170	81.810	69.510	61.950	46.900
2.1400	75.040	79.090	68.940	61.630	47.210
2.1440	74.660	81.280	69.930	62.430	46.840
2.1480	74.440	79.000	69.840	61.350	46.990
2.1520	75.280	83.040	68.800	61.810	47.140
2.1560	75.180	84.130	69.350	61.390	47.420
2.1600	74.690	81.810	69.610	61.090	47.580
2.1640	75.320	81.580	69.910	62.240	47.130
2.1680	74.590	81.610	70.370	61.910	47.560
2.1720	73.920	81.670	69.850	62.780	47.490
2.1760	73.810	81.660	70.170	63.750	47.360
2.1800	74.840	81.380	70.620	63.570	48.180
2.1840	74.440	81.570	70.780	62.740	47.280
2.1880	74.500	82.270	71.000	62.540	47.330
2.1920	75.050	82.060	71.020	62.350	47.180
2.1960	75.010	81.620	71.400	61.660	46.450
2.2000	74.990	81.390	71.150	61.670	47.340
2.2040	75.160	81.440	71.090	62.450	47.350
2.2080	75.710	81.960	70.950	62.070	46.070
2.2120	76.170	77.260	70.960	62.490	46.610
2.2160	75.960	84.000	71.970	62.540	45.890
2.2200	76.120	81.450	71.460	62.940	47.920
2.2240	76.290	81.700	71.750	62.590	47.570
2.2280	75.700	82.620	71.730	62.100	47.380
2.2320	75.450	82.240	71.120	63.290	47.000
2.2360	76.850	73.940	71.950	63.370	46.430
2.2400	76.900	82.010	72.180	63.330	47.610
2.2440	77.090	82.050	72.320	62.590	47.910
2.2480	76.360	83.180	72.960	62.960	47.450
2.2520	75.910	82.440	72.860	63.510	48.320
2.2560	76.790	82.110	72.420	63.400	47.560
2.2600	77.150	81.460	72.410	63.890	46.560
2.2640	77.700	82.640	72.030	62.940	46.870
2.2680	78.170	79.200	71.970	62.450	46.870

2.2720	78.750	78.510	73.550	64.300	46.920
2.2760	78.990	82.020	73.960	64.930	46.160
2.2800	78.500	82.010	73.590	65.590	46.680
2.2840	79.120	82.360	72.950	65.750	48.090
2.2880	78.060	82.110	72.500	65.040	47.760
2.2920	77.100	82.270	72.710	64.010	47.930
2.2960	78.360	82.210	73.880	64.130	47.940
2.3000	79.240	81.670	74.210	65.000	46.440
2.3040	78.720	82.380	73.030	65.540	46.450
2.3080	79.060	82.460	72.840	66.550	48.030
2.3120	78.160	81.380	72.850	65.710	46.050
2.3160	77.500	81.360	73.650	65.130	46.900
2.3200	77.460	80.210	73.940	65.830	47.310
2.3240	76.250	80.000	73.040	66.310	47.470
2.3280	75.660	80.180	71.810	65.580	47.040
2.3320	75.030	79.830	71.400	65.670	47.450
2.3360	75.240	79.610	70.670	65.830	47.360
2.3400	74.860	79.040	71.090	65.250	48.980
2.3440	72.590	78.310	70.180	63.900	48.380
2.3480	72.030	76.970	68.440	63.710	47.580
2.3520	71.640	77.000	67.120	62.710	48.110
2.3560	71.050	76.310	67.590	61.550	47.660
2.3600	69.830	75.230	65.990	60.770	47.600
2.3640	68.960	75.300	64.810	59.850	47.270
2.3680	68.810	74.620	64.740	59.120	47.460
2.3720	68.070	73.510	64.160	58.660	46.960
2.3760	67.220	73.650	63.450	57.400	47.070
2.3800	66.520	74.540	63.150	57.580	46.940
2.3840	65.480	74.120	62.550	56.940	46.800
2.3880	65.230	73.240	61.860	54.850	47.060
2.3920	66.460	73.090	61.760	55.070	46.740
2.3960	66.270	72.780	61.970	55.510	46.980
2.4000	65.670	72.520	62.430	55.690	46.730
2.4040	66.040	72.210	63.040	55.640	47.520
2.4080	66.080	72.420	63.980	55.510	46.530
2.4120	66.730	71.980	64.150	55.090	47.130
2.4160	67.150	72.580	64.220	55.050	47.770
2.4200	67.960	71.980	63.910	55.570	47.410
2.4240	67.440	72.930	65.040	56.320	47.200
2.4280	66.960	72.110	65.840	56.780	46.890
2.4320	67.180	71.290	65.790	56.830	46.940
2.4360	67.990	72.470	65.350	57.970	48.070
2.4400	68.470	73.210	66.140	57.540	48.210
2.4440	67.220	73.860	66.310	58.250	47.370
2.4480	68.320	73.570	67.440	57.130	48.110
2.4520	68.690	72.270	67.310	57.740	48.480
2.4560	68.920	73.960	67.500	57.900	47.890
2.4600	69.020	74.560	68.710	57.800	47.880
2.4640	68.470	74.550	68.620	58.880	46.690
2.4680	69.170	73.630	67.860	58.840	46.850
2.4720	69.450	74.180	68.480	58.520	47.090
2.4760	69.890	75.110	68.780	59.200	47.630
2.4800	69.530	78.070	68.560	59.240	48.310
2.4840	70.310	76.920	69.010	59.140	48.380
2.4880	71.500	75.350	69.140	59.010	47.800
2.4920	71.660	75.090	69.160	59.540	46.580
2.4960	71.750	75.530	69.650	59.930	47.110

2.5000	71.710	75.690	69.770	60.060	47.020
2.5040	71.300	75.290	70.070	59.280	47.090
2.5080	72.040	76.250	70.210	60.140	47.300
2.5120	72.180	77.270	69.970	60.590	46.710
2.5160	72.540	76.890	69.620	60.580	46.770
2.5200	72.660	76.860	70.260	59.730	47.520
2.5240	72.730	76.880	70.920	60.130	47.880
2.5280	71.660	76.940	70.780	59.930	47.800
2.5320	73.050	77.060	71.230	60.870	47.280
2.5360	74.020	76.630	69.930	61.790	47.030
2.5400	74.090	78.310	74.000	61.080	47.670
2.5440	74.380	79.140	69.180	61.790	47.100
2.5480	74.200	77.960	71.340	62.250	46.690
2.5520	74.730	77.810	71.530	61.840	47.220
2.5560	74.920	78.490	71.560	62.130	47.270
2.5600	75.140	78.480	72.830	61.610	47.680
2.5640	74.410	79.400	73.050	62.480	48.120
2.5680	74.810	80.140	73.020	63.270	46.610
2.5720	75.310	79.690	72.630	63.050	47.730
2.5760	74.730	80.320	72.970	63.540	46.720
2.5800	75.880	80.660	73.730	63.890	46.970
2.5840	76.900	81.070	73.270	63.070	46.920
2.5880	76.830	81.130	74.000	62.690	47.070
2.5920	76.740	80.610	74.470	64.410	47.280
2.5960	77.340	81.170	73.810	63.750	47.710
2.6000	77.670	81.350	73.520	64.160	47.600
2.6040	78.130	81.820	73.930	65.220	47.760
2.6080	78.510	81.690	75.440	64.520	48.090
2.6120	78.270	81.080	76.600	65.200	48.020
2.6160	79.120	82.000	76.800	65.140	47.360
2.6200	79.620	81.980	76.030	65.670	47.410
2.6240	79.630	82.020	75.850	65.640	46.450
2.6280	79.060	83.270	76.160	66.220	47.100
2.6320	79.330	83.130	76.940	66.370	47.850
2.6360	78.760	83.340	77.140	66.970	48.090
2.6400	78.980	82.460	76.330	66.890	48.010
2.6440	79.420	82.360	76.870	67.060	47.690
2.6480	79.430	81.010	76.700	67.380	47.040
2.6520	77.960	80.920	76.670	66.830	46.120
2.6560	77.190	80.640	77.240	66.940	46.370
2.6600	76.170	80.750	76.430	67.830	46.450
2.6640	75.940	80.600	75.840	67.960	46.890
2.6680	76.730	79.410	75.450	67.530	48.300
2.6720	75.640	79.920	75.080	66.420	47.910
2.6760	73.810	79.970	74.250	65.590	47.030
2.6800	74.160	79.210	72.820	64.270	47.510
2.6840	73.290	79.630	73.420	63.050	47.390
2.6880	71.400	78.640	72.370	62.990	49.400
2.6920	71.640	76.960	70.600	62.290	49.120
2.6960	70.150	76.690	69.430	61.790	48.180
2.7000	69.260	76.230	67.770	62.060	50.280
2.7040	68.530	74.920	68.420	60.850	48.130
2.7080	67.410	75.430	68.740	59.230	46.870
2.7120	67.990	74.080	67.670	57.790	46.360
2.7160	67.800	73.260	66.580	57.470	47.430
2.7200	65.810	72.830	64.720	57.510	47.550
2.7240	65.780	72.580	63.640	55.730	47.840

2.7280	65.160	72.120	63.930	55.340	47.250
2.7320	65.970	71.970	62.700	55.400	46.400
2.7360	65.470	71.250	61.340	54.550	45.100
2.7400	65.070	70.060	61.300	53.010	48.410
2.7440	65.810	70.750	60.880	53.070	48.310
2.7480	65.740	70.300	61.170	53.660	46.840
2.7520	65.030	69.220	61.870	52.010	46.810
2.7560	65.140	68.830	62.230	52.350	48.250
2.7600	65.420	68.800	62.800	52.410	47.690
2.7640	65.310	69.570	62.110	52.670	46.350
2.7680	65.500	69.100	62.360	54.290	47.490
2.7720	65.270	69.130	62.930	54.670	47.830
2.7760	65.380	69.140	63.520	54.010	47.720
2.7800	65.560	69.660	64.330	54.880	46.820
2.7840	65.440	69.730	64.500	55.190	47.410
2.7880	66.540	69.820	64.750	55.080	47.580
2.7920	67.310	71.590	65.760	55.700	43.030
2.7960	68.180	70.930	66.210	55.930	47.070
2.8000	68.090	71.840	66.320	56.430	46.980
2.8040	67.300	72.560	66.650	56.870	46.320
2.8080	67.590	73.050	66.460	56.690	47.140
2.8120	68.340	73.850	67.200	56.550	47.350
2.8160	68.580	73.810	67.950	56.240	46.430
2.8200	69.020	73.560	68.190	57.270	48.020
2.8240	70.260	74.190	68.250	57.290	48.170
2.8280	69.940	74.790	68.680	57.370	47.930
2.8320	69.900	74.000	69.340	57.680	47.640
2.8360	71.280	74.110	69.320	58.250	47.690
2.8400	70.940	75.070	70.300	58.250	47.780
2.8440	71.290	74.840	70.340	58.920	47.390
2.8480	71.520	75.230	70.760	58.890	48.100
2.8520	71.880	76.300	70.460	59.310	47.710
2.8560	72.000	76.290	70.920	59.860	47.540
2.8600	71.920	75.620	71.770	59.910	47.150
2.8640	73.400	75.430	71.700	60.130	47.330
2.8680	73.510	76.130	71.440	60.670	46.680
2.8720	73.380	76.230	72.100	61.640	47.480
2.8760	73.660	77.310	72.540	61.100	47.680
2.8800	74.310	77.810	73.040	61.300	49.540
2.8840	74.500	76.680	73.480	61.470	47.070
2.8880	74.650	76.770	72.910	61.130	46.860
2.8920	74.490	78.450	72.790	60.860	46.730
2.8960	75.030	78.980	73.480	61.160	47.260
2.9000	76.210	79.490	74.050	62.560	47.760
2.9040	76.440	78.900	74.570	62.450	47.080
2.9080	75.740	78.020	74.930	62.610	46.840
2.9120	76.070	79.540	74.660	63.660	47.160
2.9160	76.970	80.220	74.230	63.510	46.650
2.9200	76.520	80.420	75.710	63.880	46.750
2.9240	77.100	80.380	75.990	64.260	47.050
2.9280	77.230	80.870	75.990	64.070	46.760
2.9320	78.050	80.720	75.720	64.140	46.800
2.9360	78.380	81.870	76.440	65.440	48.170
2.9400	78.080	82.030	78.300	66.110	53.200
2.9440	78.210	81.350	77.830	65.820	48.620
2.9480	77.580	81.460	78.140	65.970	47.530
2.9520	77.230	81.750	77.420	65.100	46.000

2.9560	77.450	82.870	77.790	65.870	45.760
2.9600	77.360	82.930	77.130	66.110	47.780
2.9640	76.530	82.570	77.440	66.010	45.470
2.9680	77.070	82.400	77.400	65.520	47.250
2.9720	77.540	82.330	77.000	65.120	47.100
2.9760	76.930	80.470	77.330	66.090	47.270
2.9800	76.430	79.900	77.600	66.100	47.940
2.9840	76.210	79.650	78.560	65.550	47.950
2.9880	77.090	80.310	80.410	65.070	47.480
2.9920	76.210	80.110	90.470	63.720	48.000
2.9960	111.86	79.900	148.53	63.370	47.490
3.0000	117.91	78.990	154.60	63.720	47.160
3.0040	111.92	78.010	148.62	62.980	47.110
3.0080	76.810	77.600	90.620	62.030	48.000
3.0120	75.630	77.080	80.130	61.510	47.490
3.0160	73.910	76.110	75.330	60.270	45.890
3.0200	72.160	75.620	73.140	60.200	47.380
3.0240	71.790	74.920	72.750	60.230	47.700
3.0280	71.100	74.690	71.050	58.760	47.900
3.0320	69.610	74.800	71.170	57.980	47.250
3.0360	70.170	73.550	71.060	57.710	47.140
3.0400	69.560	72.630	69.110	57.440	47.500
3.0440	69.220	72.470	68.250	56.470	46.870
3.0480	69.190	72.510	67.270	56.110	46.250
3.0520	68.990	72.130	67.500	55.860	47.480
3.0560	69.080	70.500	67.230	55.640	47.800
3.0600	68.170	70.140	66.920	54.970	50.490
3.0640	68.120	71.070	67.040	54.040	49.050
3.0680	68.140	70.530	66.630	54.690	48.070
3.0720	67.990	70.470	64.940	54.840	47.180
3.0760	67.420	71.280	65.450	55.050	47.680
3.0800	68.050	72.040	65.820	55.250	47.460
3.0840	67.800	71.750	66.640	54.730	46.690
3.0880	67.800	72.020	66.630	54.600	48.120
3.0920	68.260	72.310	66.730	54.860	47.710
3.0960	69.780	72.830	66.190	56.350	46.530
3.1000	70.020	71.840	66.600	60.300	46.310
3.1040	69.980	71.490	67.650	58.560	47.470
3.1080	70.860	71.270	68.000	55.530	47.620
3.1120	70.900	72.350	67.900	56.090	47.570
3.1160	69.870	72.750	68.580	55.780	47.700
3.1200	71.240	73.170	69.500	56.460	47.230
3.1240	71.140	73.240	69.530	57.460	48.030
3.1280	70.580	73.840	69.680	56.910	48.080
3.1320	71.240	73.630	70.510	56.510	47.650
3.1360	71.730	73.130	70.590	57.440	46.830
3.1400	72.330	74.110	70.410	58.630	46.090
3.1440	73.050	74.440	71.120	58.590	46.440
3.1480	72.740	74.200	70.920	58.250	46.910
3.1520	72.440	74.380	71.590	59.510	47.060
3.1560	71.990	76.100	72.790	60.350	47.640
3.1600	72.840	76.720	72.580	60.580	48.080
3.1640	73.690	76.830	72.370	60.230	48.260
3.1680	73.810	77.600	73.460	59.940	46.180
3.1720	73.600	77.880	73.310	60.530	46.990
3.1760	73.530	78.160	73.770	62.120	47.770
3.1800	74.670	77.120	73.900	61.770	48.970

3.1840	75.130	76.930	73.070	61.760	46.910
3.1880	76.020	76.990	74.340	61.980	47.050
3.1920	75.720	78.050	74.270	61.760	48.850
3.1960	75.290	79.020	74.990	61.710	48.360
3.2000	75.520	79.090	75.480	61.770	47.890
3.2040	75.810	78.440	75.130	61.970	47.620
3.2080	75.970	78.420	75.200	62.780	47.340
3.2120	75.110	78.910	75.050	63.250	47.370
3.2160	75.050	79.350	74.260	63.200	47.210
3.2200	73.830	79.650	74.200	63.090	47.390
3.2240	74.280	79.280	73.780	62.720	47.320
3.2280	73.900	79.100	73.770	62.940	47.120
3.2320	72.620	78.220	74.090	62.780	48.200
3.2360	72.040	78.200	73.380	62.090	48.060
3.2400	72.150	78.550	72.830	62.600	48.430
3.2440	71.680	77.830	72.770	62.680	47.350
3.2480	72.220	78.060	71.450	62.880	47.960
3.2520	71.540	77.950	71.220	62.920	47.730
3.2560	70.540	77.560	71.420	62.720	47.800
3.2600	69.780	76.880	71.200	62.140	48.170
3.2640	68.520	76.260	70.410	61.620	46.310
3.2680	68.440	76.810	69.770	61.190	47.540
3.2720	67.870	76.420	69.450	60.840	46.070
3.2760	67.120	75.790	68.950	59.750	47.480
3.2800	66.910	74.950	68.110	59.010	47.760
3.2840	66.370	74.410	66.480	58.890	47.440
3.2880	65.680	73.550	65.970	58.230	48.170
3.2920	65.620	73.160	65.580	57.440	44.240
3.2960	64.660	73.340	64.430	56.700	47.520
3.3000	64.510	72.580	64.580	56.290	48.680
3.3040	65.300	72.190	64.500	55.720	48.690
3.3080	65.550	73.450	64.090	55.430	46.830
3.3120	66.000	72.790	63.880	54.660	46.650
3.3160	65.330	70.820	64.380	53.990	46.930
3.3200	65.920	71.750	63.890	55.310	46.740
3.3240	65.360	72.190	64.250	53.910	47.170
3.3280	65.720	72.470	64.240	52.740	47.200
3.3320	66.830	71.800	62.820	52.170	47.630
3.3360	66.280	71.380	62.490	53.060	47.390
3.3400	65.770	72.130	63.520	52.930	47.120
3.3440	66.430	72.820	64.780	52.710	47.490
3.3480	67.040	73.220	66.060	51.650	47.140
3.3520	67.500	74.220	65.540	53.290	47.120
3.3560	67.790	74.470	66.720	55.080	46.260
3.3600	68.980	73.600	66.970	55.050	47.340
3.3640	69.400	73.470	66.970	55.150	47.690
3.3680	68.930	73.890	68.420	54.890	47.590
3.3720	68.870	74.100	68.190	54.560	47.540
3.3760	69.460	74.670	68.110	55.470	46.830
3.3800	69.320	75.150	68.780	55.590	46.270
3.3840	70.390	75.760	69.870	57.340	46.660
3.3880	71.310	75.470	70.020	58.160	47.050
3.3920	72.030	75.470	69.700	59.210	47.070
3.3960	72.710	75.580	70.960	59.030	46.490
3.4000	73.150	76.600	70.670	58.750	47.530
3.4040	73.200	76.490	72.300	59.410	43.960
3.4080	72.780	74.940	71.960	59.520	47.040

3.4120	73.700	75.450	72.840	59.240	49.250
3.4160	73.400	76.240	73.860	59.890	48.440
3.4200	73.900	75.880	74.770	61.620	48.400
3.4240	74.380	76.130	75.560	61.260	47.530
3.4280	74.730	76.420	76.320	61.330	46.580
3.4320	76.210	76.410	76.670	62.020	46.620
3.4360	77.020	76.720	76.140	62.950	47.270
3.4400	76.860	77.020	76.090	64.770	47.280
3.4440	76.730	76.560	76.440	64.180	47.270
3.4480	77.210	76.650	77.170	63.910	47.100
3.4520	76.980	77.830	77.500	64.850	47.010
3.4560	77.860	77.790	77.950	65.230	46.430
3.4600	78.090	77.930	82.710	65.990	47.060
3.4640	76.420	78.540	78.160	66.210	48.240
3.4680	76.500	78.960	76.460	65.340	48.060
3.4720	76.250	79.650	77.220	66.300	48.710
3.4760	76.230	79.820	77.960	67.210	49.220
3.4800	75.630	80.090	76.890	66.480	47.000
3.4840	75.630	79.500	76.410	65.820	47.200
3.4880	76.270	78.920	76.410	65.620	47.850
3.4920	75.140	78.500	76.200	65.230	48.170
3.4960	73.940	78.870	75.880	64.790	47.060
3.5000	74.240	78.850	75.720	64.530	46.620
3.5040	73.250	78.480	74.910	63.420	47.920
3.5080	73.390	77.950	73.670	63.310	47.940
3.5120	72.850	77.560	73.450	62.770	46.820
3.5160	72.420	80.060	72.630	62.470	47.160
3.5200	71.890	80.410	71.350	61.980	46.580
3.5240	71.840	76.490	70.600	61.390	47.140
3.5280	70.380	75.950	70.400	60.550	47.450
3.5320	69.210	75.910	69.910	60.850	46.760
3.5360	69.450	75.500	69.480	60.170	45.550
3.5400	69.850	75.310	70.130	59.890	48.790
3.5440	69.120	74.890	69.430	63.400	47.330
3.5480	68.250	73.790	67.650	80.360	46.780
3.5520	67.710	73.920	66.730	81.810	47.140
3.5560	67.350	73.330	66.900	71.520	47.320
3.5600	67.220	73.530	66.390	58.080	46.850
3.5640	65.370	72.920	65.410	57.000	47.600
3.5680	65.080	71.060	65.000	56.270	47.460
3.5720	64.560	70.180	64.250	55.310	45.970
3.5760	63.790	70.410	63.830	56.510	46.760
3.5800	63.800	70.970	63.070	55.760	47.610
3.5840	63.320	70.150	62.040	54.810	47.650
3.5880	63.000	69.760	60.380	54.740	47.000
3.5920	63.080	69.890	61.100	53.320	47.170
3.5960	62.680	69.680	60.940	52.900	47.010
3.6000	62.150	69.470	59.150	52.780	47.970
3.6040	62.010	68.610	58.740	51.500	47.180
3.6080	60.980	68.750	58.880	51.530	47.400
3.6120	61.720	69.440	57.920	51.840	46.410
3.6160	62.030	69.140	58.450	51.480	46.480
3.6200	61.650	69.400	58.920	50.260	46.730
3.6240	62.300	69.100	59.260	50.300	47.070
3.6280	62.470	70.190	59.540	50.250	46.990
3.6320	62.480	70.860	60.060	51.080	47.230
3.6360	63.640	70.850	60.250	50.830	47.470

3.6400	63.550	70.800	61.100	51.350	46.930
3.6440	64.840	71.080	61.870	51.300	48.100
3.6480	65.470	71.630	62.360	51.590	47.410
3.6520	65.020	71.870	62.700	52.900	46.720
3.6560	65.720	72.440	64.000	54.170	48.220
3.6600	65.380	73.000	64.990	54.850	48.250
3.6640	67.260	73.270	64.760	53.870	45.610
3.6680	68.780	73.590	65.510	54.610	46.550
3.6720	69.010	73.940	65.980	55.660	47.130
3.6760	69.580	75.080	66.760	55.630	47.240
3.6800	70.500	75.740	67.340	57.280	46.630
3.6840	70.880	75.780	68.050	58.330	47.320
3.6880	71.180	76.420	68.470	58.400	46.420
3.6920	71.700	77.690	70.040	58.310	47.460
3.6960	72.010	78.770	70.770	58.860	46.770
3.7000	72.320	78.860	71.860	60.570	47.850
3.7040	73.520	78.820	72.500	60.950	47.310
3.7080	73.450	79.600	73.530	61.710	47.090
3.7120	74.730	80.480	73.610	62.000	47.790
3.7160	75.850	80.680	74.020	62.020	48.680
3.7200	75.980	80.570	73.870	62.910	48.430
3.7240	76.890	81.270	75.430	63.160	47.570
3.7280	77.630	81.220	76.180	64.600	47.450
3.7320	78.740	80.850	76.770	65.120	47.150
3.7360	78.570	81.370	76.920	65.660	47.060
3.7400	78.990	81.280	78.550	66.780	47.330
3.7440	79.920	81.350	78.950	67.110	47.560
3.7480	80.140	81.380	79.130	67.690	46.570
3.7520	78.810	80.380	79.200	68.820	47.570
3.7560	78.920	80.080	79.870	69.480	48.090
3.7600	79.150	81.190	79.580	69.750	44.590
3.7640	77.600	81.110	79.330	69.440	46.770
3.7680	78.250	79.430	79.270	68.980	47.060
3.7720	78.900	78.490	78.790	68.620	47.620
3.7760	77.830	78.570	78.160	68.800	49.110
3.7800	77.160	78.890	77.820	69.180	44.810
3.7840	75.550	79.350	76.880	69.100	47.080
3.7880	75.500	79.150	75.940	68.640	46.710
3.7920	75.620	79.110	75.970	67.530	46.590
3.7960	75.330	79.150	76.290	67.230	46.140
3.8000	74.740	79.190	75.480	65.590	47.200
3.8040	74.520	79.660	75.180	65.640	47.020
3.8080	73.220	78.810	74.370	64.740	47.140
3.8120	73.310	79.120	74.480	64.090	46.080
3.8160	72.530	79.390	73.390	63.750	47.680
3.8200	71.930	78.760	72.540	63.900	47.970
3.8240	72.110	79.780	72.030	63.740	47.200
3.8280	72.230	79.820	72.000	63.100	47.170
3.8320	71.970	78.510	70.930	63.000	46.720
3.8360	71.220	78.530	70.190	61.920	46.280
3.8400	70.450	79.440	69.630	61.200	46.290
3.8440	70.580	78.950	69.140	60.640	46.920
3.8480	69.760	78.880	69.150	60.070	46.220
3.8520	69.630	78.030	68.350	60.230	46.030
3.8560	69.620	78.230	68.290	60.000	49.220
3.8600	68.570	78.190	68.300	59.960	46.570
3.8640	68.740	77.550	67.600	59.580	46.850

3.8680	69.210	77.360	65.730	59.440	46.620
3.8720	68.000	77.270	65.790	59.310	47.050
3.8760	66.170	75.900	66.690	58.970	47.980
3.8800	66.730	75.280	65.970	58.390	48.090
3.8840	66.690	75.690	65.680	58.180	47.870
3.8880	66.850	76.240	64.360	57.500	47.730
3.8920	65.990	75.770	63.730	56.710	46.590
3.8960	65.440	74.140	63.550	56.640	46.750
3.9000	64.550	75.460	62.570	55.800	48.260
3.9040	64.840	75.610	62.460	56.340	47.770
3.9080	65.000	75.140	62.040	56.150	47.820
3.9120	64.010	76.420	60.950	54.670	46.650
3.9160	63.310	77.190	60.690	53.930	46.320
3.9200	64.060	76.860	59.310	54.420	46.800
3.9240	63.400	76.470	58.640	54.640	48.010
3.9280	62.390	76.210	58.050	53.580	47.080
3.9320	62.230	77.340	57.460	53.420	46.240
3.9360	61.350	79.070	57.020	53.200	46.020
3.9400	60.470	79.160	55.600	51.600	46.610
3.9440	60.140	78.480	54.970	51.440	46.880
3.9480	61.040	78.490	54.850	51.720	46.560
3.9520	61.220	79.250	55.040	51.210	46.790
3.9560	61.150	75.090	55.070	51.420	46.770
3.9600	61.860	80.610	55.950	51.950	47.170
3.9640	62.190	81.400	56.860	54.220	47.350
3.9680	62.860	80.920	58.430	56.840	46.570
3.9720	64.500	81.360	59.130	59.140	46.440
3.9760	65.290	82.750	59.620	65.620	46.000
3.9800	66.820	83.680	60.350	65.910	46.170
3.9840	68.620	85.140	60.130	76.010	46.580
3.9880	68.100	86.790	62.330	83.010	47.630
3.9920	69.700	90.130	64.230	95.420	48.050
3.9960	110.55	145.98	65.190	150.12	48.190
4.0000	116.62	152.05	65.030	156.21	50.010
4.0040	110.64	146.09	66.440	150.26	48.320
4.0080	73.060	93.220	67.200	95.400	45.930
4.0120	72.880	88.460	67.740	83.530	46.550
4.0160	73.960	87.390	68.550	76.260	46.510
4.0200	73.910	86.350	70.020	66.900	48.690
4.0240	74.210	86.350	70.210	65.290	47.990
4.0280	76.820	85.750	70.890	63.180	47.630
4.0320	78.190	84.620	72.630	64.290	45.250
4.0360	77.850	85.470	73.160	65.590	47.490
4.0400	77.710	86.020	74.540	65.550	47.270
4.0440	78.510	85.210	74.530	65.990	48.000
4.0480	79.850	84.970	75.520	67.330	48.950
4.0520	79.380	84.190	76.900	69.320	47.680
4.0560	79.320	83.630	77.660	70.140	47.280
4.0600	78.120	84.490	77.840	70.020	47.250
4.0640	78.550	84.380	78.470	70.960	46.470
4.0680	79.910	83.050	78.460	70.640	46.130
4.0720	79.210	82.980	78.230	70.710	46.870
4.0760	77.920	82.930	78.360	71.000	47.370
4.0800	78.410	83.750	78.120	71.160	48.030
4.0840	78.290	83.620	77.830	70.390	48.470
4.0880	77.770	83.400	76.640	69.230	47.010
4.0920	76.660	82.590	76.420	69.040	47.940

4.0960	76.660	82.780	76.100	69.370	48.580
4.1000	75.870	81.940	75.210	68.760	47.980
4.1040	75.290	81.800	74.090	67.390	46.950
4.1080	76.840	82.360	74.330	66.670	47.380
4.1120	76.840	82.810	74.230	66.260	47.550
4.1160	75.740	82.680	73.160	65.740	47.300
4.1200	75.520	83.250	72.850	65.890	46.560
4.1240	74.870	83.010	72.710	65.590	48.330
4.1280	74.410	82.670	72.300	64.540	46.960
4.1320	74.540	82.250	71.560	64.000	46.750
4.1360	74.140	82.430	71.920	62.920	46.740
4.1400	74.360	81.950	71.340	63.450	49.560
4.1440	74.020	81.530	71.250	63.360	49.590
4.1480	73.060	81.340	70.450	62.320	46.870
4.1520	72.290	81.570	70.280	62.020	48.450
4.1560	71.940	81.180	69.370	62.290	48.480
4.1600	71.580	80.060	68.390	61.180	47.500
4.1640	71.820	79.440	68.720	60.640	47.690
4.1680	71.990	78.440	68.810	60.490	47.370
4.1720	71.630	78.080	68.720	60.280	47.690
4.1760	71.290	78.470	68.100	60.250	47.170
4.1800	71.170	78.960	67.270	60.070	49.200
4.1840	70.630	77.370	67.020	59.580	46.550
4.1880	69.690	75.890	67.930	59.410	46.920
4.1920	69.830	76.760	67.220	58.520	47.470
4.1960	69.990	77.450	66.120	57.400	47.600
4.2000	69.820	76.780	65.720	56.890	47.170
4.2040	68.990	76.160	65.860	56.140	47.830
4.2080	68.650	75.770	65.780	57.060	47.850
4.2120	68.650	75.080	65.290	57.140	47.670
4.2160	68.260	74.880	63.360	56.610	47.550
4.2200	67.830	75.360	63.290	57.140	46.500
4.2240	66.960	74.840	63.910	56.670	48.160
4.2280	66.720	74.330	63.590	55.580	47.680
4.2320	66.550	74.020	62.930	55.900	46.750
4.2360	66.670	73.480	62.860	54.900	47.460
4.2400	66.060	73.740	62.940	54.820	47.670
4.2440	65.700	73.100	62.420	55.220	48.000
4.2480	64.420	73.020	61.660	54.900	46.700
4.2520	64.290	72.960	61.970	54.390	47.620
4.2560	64.450	73.330	61.790	53.660	47.450
4.2600	64.550	73.790	60.920	53.140	48.390
4.2640	63.600	74.440	60.110	53.360	48.590
4.2680	63.310	74.030	59.740	52.190	48.150
4.2720	63.190	74.290	59.480	51.980	47.930
4.2760	63.500	74.470	58.060	51.480	47.750
4.2800	62.300	74.140	56.110	51.910	47.720
4.2840	62.470	73.840	56.130	51.070	47.700
4.2880	61.530	73.420	56.160	50.560	47.430
4.2920	61.110	73.680	55.720	50.220	46.810
4.2960	62.040	74.210	56.340	52.260	47.840
4.3000	62.730	74.740	56.750	53.670	47.720
4.3040	61.960	75.070	57.360	51.220	46.920
4.3080	61.260	75.300	57.770	49.520	46.900
4.3120	64.080	75.180	58.030	51.350	47.900
4.3160	64.390	75.070	59.140	51.140	48.070
4.3200	63.980	75.170	60.650	50.720	48.570

4.3240	64.410	74.150	62.020	51.730	48.780
4.3280	65.550	74.300	63.190	52.610	48.090
4.3320	68.150	74.770	64.240	54.270	47.560
4.3360	69.120	75.870	65.940	55.310	47.290
4.3400	69.310	75.520	67.780	56.630	47.110
4.3440	70.030	75.280	68.720	56.760	48.050
4.3480	69.430	75.260	68.540	57.500	47.390
4.3520	70.300	75.750	70.000	58.540	47.260
4.3560	71.730	76.700	70.890	59.700	47.700
4.3600	72.310	77.390	71.620	60.920	47.040
4.3640	72.920	76.860	72.670	61.710	45.440
4.3680	73.210	77.250	73.000	62.300	46.760
4.3720	72.830	77.990	73.190	62.690	48.030
4.3760	72.010	78.790	73.500	62.570	47.760
4.3800	71.740	79.540	73.760	63.950	49.310
4.3840	72.310	79.370	73.070	64.710	50.300
4.3880	72.130	80.420	72.810	65.770	48.030
4.3920	72.160	80.400	73.100	64.930	47.010
4.3960	72.290	80.660	72.030	64.460	46.370
4.4000	71.810	80.780	71.840	64.550	47.860
4.4040	71.480	79.930	71.960	63.550	47.700
4.4080	71.260	79.430	70.920	63.360	47.450
4.4120	71.040	79.800	71.130	63.280	47.760
4.4160	70.290	78.720	71.300	63.550	47.350
4.4200	70.310	78.270	71.360	63.310	46.830
4.4240	69.960	78.400	70.180	61.440	47.300
4.4280	69.770	78.310	69.650	61.960	47.940
4.4320	69.890	77.580	69.910	61.700	47.430
4.4360	70.060	77.480	69.750	60.180	49.810
4.4400	70.420	77.720	68.950	60.590	47.120
4.4440	69.770	77.650	68.640	66.440	46.060
4.4480	69.910	77.560	68.000	76.890	47.620
4.4520	69.780	77.230	68.870	75.970	47.610
4.4560	69.780	76.250	68.220	60.890	48.800
4.4600	70.900	76.410	67.660	59.370	47.360
4.4640	70.120	76.030	67.590	58.940	47.570
4.4680	70.370	76.130	67.800	59.310	47.320
4.4720	69.680	74.820	67.050	59.040	47.060
4.4760	69.940	76.330	67.520	58.330	47.520
4.4800	69.550	76.700	66.680	57.880	47.360
4.4840	68.460	76.200	67.370	57.510	47.050
4.4880	69.100	75.030	66.960	57.220	46.410
4.4920	69.910	74.740	66.440	57.790	47.240
4.4960	69.500	75.490	65.660	58.010	47.370
4.5000	69.470	75.040	66.040	56.770	48.220
4.5040	67.610	74.380	66.200	56.450	46.180
4.5080	68.310	73.920	66.250	56.390	47.180
4.5120	68.320	72.200	65.780	56.920	47.090
4.5160	67.740	73.580	64.910	56.220	47.420
4.5200	67.870	74.360	64.240	54.730	47.340
4.5240	66.380	73.420	64.650	55.150	47.140
4.5280	66.250	73.850	63.630	55.580	47.270
4.5320	66.800	73.280	62.950	55.970	47.010
4.5360	66.990	72.110	63.870	56.060	46.990
4.5400	67.360	72.440	63.950	55.280	48.220
4.5440	67.410	72.380	63.300	55.010	48.120
4.5480	66.050	72.630	63.210	55.380	49.370

4.5520	66.230	73.390	63.800	54.980	48.290
4.5560	66.420	72.730	63.940	55.200	48.100
4.5600	66.280	72.790	63.020	54.600	46.970
4.5640	66.040	72.470	63.120	54.670	46.750
4.5680	66.310	71.150	63.190	54.790	47.820
4.5720	65.860	70.740	62.690	54.720	48.320
4.5760	64.250	70.230	61.940	53.510	47.120
4.5800	64.420	70.520	62.120	53.090	47.590
4.5840	64.420	70.590	61.640	53.530	47.060
4.5880	64.460	70.790	61.640	53.870	47.170
4.5920	64.850	70.510	61.530	54.200	46.890
4.5960	65.740	70.970	60.950	53.800	46.170
4.6000	65.060	71.040	61.000	54.000	47.500
4.6040	65.300	71.280	60.960	53.420	47.060
4.6080	65.960	71.720	60.160	53.230	47.870
4.6120	64.470	72.250	60.630	52.630	47.390
4.6160	65.260	72.190	61.010	52.280	47.400
4.6200	65.840	72.010	61.090	51.660	48.660
4.6240	65.280	72.800	61.960	52.660	47.310
4.6280	65.780	73.090	61.770	52.680	47.740
4.6320	66.390	72.920	62.650	53.140	46.380
4.6360	67.470	73.670	63.920	53.790	47.400
4.6400	67.890	73.490	64.420	53.790	47.170
4.6440	68.200	73.600	64.840	54.170	47.530
4.6480	67.530	73.610	64.650	54.480	47.480
4.6520	68.070	73.780	66.560	54.190	47.260
4.6560	68.730	74.030	67.150	54.140	48.040
4.6600	68.120	73.680	66.830	54.400	47.580
4.6640	67.980	74.120	66.620	55.120	47.950
4.6680	68.840	74.240	67.890	56.400	47.470
4.6720	69.700	73.920	68.070	57.070	47.440
4.6760	68.710	73.380	67.980	56.940	46.630
4.6800	68.610	73.950	67.970	57.160	46.120
4.6840	68.790	75.090	67.920	57.700	47.250
4.6880	68.590	75.270	67.250	57.940	47.430
4.6920	67.960	74.990	66.330	58.410	47.700
4.6960	67.670	74.460	66.420	58.480	47.450
4.7000	68.010	74.640	65.740	58.490	46.790
4.7040	67.810	73.900	66.100	58.550	47.110
4.7080	67.140	73.210	66.330	59.310	48.860
4.7120	67.620	73.790	65.850	57.870	48.230
4.7160	67.780	74.920	65.080	57.390	47.520
4.7200	67.170	74.610	65.990	58.260	47.760
4.7240	66.400	74.340	65.690	57.790	47.830
4.7280	66.630	74.650	65.860	56.520	47.220
4.7320	66.970	75.370	65.590	56.720	47.090
4.7360	66.960	74.320	64.850	56.780	47.060
4.7400	67.550	73.410	64.990	56.970	47.700
4.7440	67.540	73.010	64.610	57.600	47.110
4.7480	66.850	72.750	64.180	57.010	47.370
4.7520	67.540	74.050	65.170	56.210	47.260
4.7560	67.980	73.530	64.870	56.200	48.190
4.7600	66.460	72.990	64.700	55.540	47.890
4.7640	66.640	73.230	64.410	55.670	47.930
4.7680	67.310	73.820	64.680	56.260	47.520
4.7720	67.700	72.590	65.120	55.040	47.650
4.7760	67.510	73.350	64.850	55.030	47.780

4.7800	66.790	73.070	64.340	55.030	47.390
4.7840	67.590	72.940	63.350	55.290	47.210
4.7880	67.890	74.070	62.870	55.300	46.980
4.7920	66.970	73.700	62.740	54.830	47.620
4.7960	66.540	72.570	61.900	55.300	46.980
4.8000	66.290	72.650	62.940	55.490	43.140
4.8040	66.050	71.730	63.050	54.570	46.760
4.8080	65.530	71.640	63.020	54.540	47.730
4.8120	66.210	72.220	62.830	53.720	47.140
4.8160	66.650	72.800	64.050	53.410	47.160
4.8200	66.560	72.300	62.890	54.280	47.020
4.8240	66.790	71.250	62.290	54.230	47.930
4.8280	66.510	71.080	62.690	54.230	47.980
4.8320	66.380	72.300	62.730	54.500	47.610
4.8360	67.150	72.010	60.790	54.210	46.950
4.8400	66.480	70.870	61.080	53.530	46.380
4.8440	65.980	71.550	61.110	53.540	46.820
4.8480	66.100	72.000	62.070	53.790	47.220
4.8520	66.580	71.420	62.500	53.040	47.690
4.8560	66.080	71.060	61.440	53.750	47.090
4.8600	66.430	69.960	62.260	53.560	48.710
4.8640	66.690	70.540	61.760	54.120	47.900
4.8680	65.630	71.390	61.530	54.610	47.230
4.8720	65.420	70.500	63.340	54.210	48.020
4.8760	66.460	70.760	64.440	54.370	47.940
4.8800	66.370	71.270	63.560	54.610	47.700
4.8840	65.660	70.620	64.030	55.250	47.970
4.8880	67.140	71.120	65.040	55.590	47.890
4.8920	67.160	70.490	63.480	55.980	47.730
4.8960	66.590	70.350	63.690	56.140	47.130
4.9000	67.180	70.490	63.750	56.120	47.150
4.9040	67.140	69.940	64.630	56.300	47.220
4.9080	67.670	71.250	64.260	56.360	46.960
4.9120	67.150	72.650	63.970	56.470	47.180
4.9160	67.210	72.140	64.260	56.220	46.830
4.9200	67.660	71.590	63.790	54.960	47.420
4.9240	67.340	70.920	63.500	55.620	46.650
4.9280	67.330	71.120	63.440	55.000	47.220
4.9320	67.490	72.280	62.740	55.040	46.690
4.9360	66.800	72.070	63.360	55.220	47.120
4.9400	67.420	72.140	63.560	55.480	47.790
4.9440	68.030	72.060	63.960	54.840	46.660
4.9480	67.490	71.570	64.620	54.510	47.420
4.9520	66.380	72.490	63.640	54.160	46.480
4.9560	67.470	73.210	63.510	54.760	47.860
4.9600	66.900	73.570	63.890	55.660	47.300
4.9640	66.760	73.560	63.680	54.750	47.240
4.9680	66.220	72.680	63.890	55.100	47.540
4.9720	66.750	72.840	62.890	54.960	47.040
4.9760	66.890	72.080	63.300	55.360	47.120
4.9800	66.260	72.300	62.400	55.480	47.840
4.9840	67.120	72.520	61.610	54.440	46.330
4.9880	68.230	71.710	63.000	54.020	46.700
4.9920	68.540	72.060	63.260	54.970	47.310
4.9960	113.08	72.150	63.760	54.400	48.180
5.0000	119.16	71.900	63.690	54.230	47.200
5.0040	113.20	71.550	63.370	54.380	47.180

5.0080	68.560	72.210	63.680	53.950	46.820
5.0120	67.770	72.220	62.840	54.450	47.340
5.0160	67.200	72.450	62.980	54.430	47.800
5.0200	66.750	72.540	63.100	54.230	47.320
5.0240	66.720	71.580	62.630	54.110	47.540
5.0280	67.500	71.900	61.800	54.520	48.050
5.0320	67.790	71.720	62.760	54.750	47.810
5.0360	67.110	71.510	62.980	54.120	46.650
5.0400	67.760	72.050	63.270	54.370	46.100
5.0440	67.540	72.420	62.890	54.450	47.050
5.0480	67.690	72.160	63.130	53.600	46.790
5.0520	67.360	72.070	63.410	52.940	47.290
5.0560	68.110	71.670	62.350	54.530	47.410
5.0600	67.390	71.770	62.190	55.050	46.880
5.0640	67.390	71.940	62.330	54.170	48.580
5.0680	68.270	72.770	62.920	54.190	47.160
5.0720	67.840	71.810	63.470	54.640	47.230
5.0760	67.940	71.560	63.590	54.400	47.040
5.0800	67.190	71.410	62.360	54.130	48.040
5.0840	67.490	71.030	62.340	54.450	47.860
5.0880	66.730	70.690	62.700	54.260	47.490
5.0920	65.670	70.990	62.820	54.400	46.830
5.0960	67.120	70.960	62.750	55.290	46.850
5.1000	68.380	71.020	63.090	53.620	47.860
5.1040	68.200	71.470	63.150	54.170	47.890
5.1080	67.560	70.790	63.060	55.140	47.490
5.1120	67.010	70.340	62.850	55.230	47.710
5.1160	66.520	70.650	63.280	54.960	48.570
5.1200	67.760	70.120	63.060	55.370	47.760
5.1240	67.360	69.620	62.840	55.970	46.860
5.1280	67.320	69.950	63.070	54.510	47.660
5.1320	67.020	69.710	62.960	54.760	47.610
5.1360	66.830	69.250	63.540	56.090	47.710
5.1400	66.120	68.980	62.520	54.970	46.850
5.1440	65.660	69.890	61.290	54.730	46.590
5.1480	65.530	70.070	60.980	54.660	47.220
5.1520	65.990	69.590	61.800	54.910	47.460
5.1560	65.750	69.580	61.070	53.730	47.200
5.1600	65.150	70.020	60.120	53.840	45.970
5.1640	64.660	69.450	59.760	53.930	46.500
5.1680	64.570	70.040	59.410	52.760	47.680
5.1720	64.020	70.260	59.220	52.440	47.260
5.1760	63.540	70.110	59.780	53.230	48.030
5.1800	63.880	69.600	60.410	52.280	47.790
5.1840	64.020	69.890	59.810	52.160	47.180
5.1880	64.040	69.270	59.260	53.530	47.330
5.1920	63.220	69.360	59.300	53.810	47.430
5.1960	63.390	69.780	59.710	53.410	47.590
5.2000	64.450	70.280	59.830	52.410	46.920
5.2040	64.960	69.940	59.600	50.840	46.760
5.2080	64.800	69.700	60.330	51.850	46.980
5.2120	64.680	69.560	60.710	52.270	46.470
5.2160	64.350	69.900	60.470	52.390	45.950
5.2200	63.820	69.330	60.620	52.310	47.440
5.2240	64.540	68.770	60.630	52.770	47.430
5.2280	65.450	68.830	59.660	52.750	47.150
5.2320	65.340	69.420	60.470	52.870	46.990

5.2360	64.720	69.280	61.060	53.180	47.620
5.2400	64.470	70.050	61.190	52.780	47.410
5.2440	64.220	70.340	60.870	52.570	46.790
5.2480	65.040	71.090	60.920	52.770	46.750
5.2520	65.620	70.580	60.980	52.600	46.580
5.2560	65.790	70.200	60.390	52.490	46.500
5.2600	65.580	69.910	60.350	52.820	46.860
5.2640	63.970	70.810	61.210	52.790	47.840
5.2680	65.690	71.420	60.800	52.440	47.200
5.2720	65.710	71.660	60.470	51.720	47.810
5.2760	65.640	71.050	60.950	52.720	46.830
5.2800	65.950	70.980	61.370	53.710	47.360
5.2840	65.880	71.160	61.380	52.920	47.660
5.2880	65.390	70.670	62.370	52.770	47.340
5.2920	65.540	70.750	61.540	52.390	47.320
5.2960	65.700	71.480	61.700	53.190	46.960
5.3000	66.040	71.130	61.990	53.640	46.860
5.3040	65.610	70.820	61.680	53.160	47.770
5.3080	65.720	71.460	61.390	53.440	47.870
5.3120	66.620	71.540	61.390	53.270	46.650
5.3160	66.220	72.380	61.670	54.090	48.130
5.3200	66.160	71.530	62.290	54.020	47.180
5.3240	66.340	71.130	61.980	53.680	47.320
5.3280	67.280	71.800	62.200	53.390	47.690
5.3320	67.890	72.400	62.580	53.700	46.380
5.3360	67.410	72.350	61.950	53.270	47.180
5.3400	66.590	71.890	61.120	53.130	47.560
5.3440	67.250	72.300	61.820	53.640	47.360
5.3480	67.330	72.120	61.300	53.330	46.820
5.3520	68.650	72.560	61.310	53.960	47.920
5.3560	68.550	73.270	62.230	54.090	45.490
5.3600	67.370	73.440	62.200	53.820	47.540
5.3640	67.820	74.400	62.980	54.180	46.860
5.3680	67.640	73.130	63.280	54.930	47.330
5.3720	67.300	73.100	63.940	54.870	47.840
5.3760	67.640	73.990	63.350	55.450	46.890
5.3800	67.370	73.490	63.000	54.930	46.860
5.3840	68.240	73.710	62.850	54.720	47.670
5.3880	68.330	74.210	64.160	55.870	47.730
5.3920	69.430	74.630	64.390	54.770	48.150
5.3960	69.900	74.060	63.390	54.340	47.850
5.4000	69.340	74.190	63.300	54.850	47.010
5.4040	69.340	73.570	63.750	55.090	46.880
5.4080	69.510	72.410	64.440	55.080	47.860
5.4120	69.310	72.400	65.760	56.580	47.210
5.4160	69.350	73.370	65.920	56.490	46.710
5.4200	69.570	73.150	65.490	56.050	46.790
5.4240	69.950	72.790	65.780	56.910	46.500
5.4280	70.280	72.990	65.980	58.110	47.200
5.4320	70.970	73.310	66.770	58.520	47.820
5.4360	71.750	73.250	66.290	57.890	48.800
5.4400	71.380	73.010	66.660	58.610	53.140
5.4440	70.060	73.230	67.030	59.570	50.680
5.4480	69.410	72.720	68.330	60.460	47.700
5.4520	69.360	72.380	68.440	59.810	48.210
5.4560	69.700	71.770	68.660	60.280	53.410
5.4600	69.640	72.000	67.710	60.020	58.640

5.4640	68.130	71.760	66.390	60.470	54.100
5.4680	66.110	71.910	65.860	59.780	48.330
5.4720	65.000	72.390	65.410	58.570	48.130
5.4760	64.680	72.700	63.750	57.550	47.670
5.4800	64.280	73.030	61.620	55.980	47.910
5.4840	63.080	72.390	59.880	55.460	47.660
5.4880	62.960	71.780	58.500	54.220	48.440
5.4920	62.600	70.900	56.200	53.140	48.420
5.4960	61.200	70.920	55.010	53.030	47.820
5.5000	60.260	71.720	54.320	51.820	47.300
5.5040	60.210	72.110	53.270	52.370	48.100
5.5080	60.850	72.230	52.200	51.760	46.650
5.5120	60.110	71.420	52.080	50.220	47.730
5.5160	60.820	71.350	51.930	49.550	48.230
5.5200	60.800	70.740	52.120	50.300	50.570
5.5240	61.390	68.770	53.220	50.540	48.100
5.5280	61.490	69.510	53.230	50.060	46.520
5.5320	60.830	69.420	53.380	49.120	47.650
5.5360	61.300	69.280	54.690	49.790	47.130
5.5400	60.790	69.730	58.030	50.020	47.950
5.5440	60.910	69.680	56.120	48.850	47.640
5.5480	61.340	68.750	54.920	48.640	48.230
5.5520	61.380	68.910	54.150	50.080	54.410
5.5560	61.770	69.370	54.730	50.220	71.130
5.5600	61.680	69.040	55.220	50.110	73.170
5.5640	61.460	68.930	56.310	49.710	62.440
5.5680	61.490	68.400	56.100	50.230	48.370
5.5720	62.440	68.120	56.170	49.990	47.570
5.5760	62.990	68.770	56.160	50.130	48.480
5.5800	62.790	68.890	57.120	50.690	50.430
5.5840	62.770	69.000	57.630	50.570	47.910
5.5880	63.840	69.210	57.480	50.510	47.810
5.5920	63.550	69.810	57.270	50.840	47.120
5.5960	63.780	69.940	57.690	51.160	47.580
5.6000	63.620	68.980	58.620	50.520	48.850
5.6040	63.930	68.930	58.380	51.510	48.790
5.6080	64.500	70.230	57.040	51.680	47.660
5.6120	64.800	70.590	57.490	51.310	47.580
5.6160	64.820	69.910	59.020	52.450	47.760
5.6200	64.470	70.650	58.750	52.110	47.670
5.6240	65.020	70.470	58.670	51.420	47.450
5.6280	66.120	70.510	58.930	50.180	47.700
5.6320	65.900	70.910	58.040	51.850	47.110
5.6360	65.450	71.300	58.900	52.560	47.750
5.6400	65.510	70.870	59.460	52.290	47.330
5.6440	66.000	70.490	59.170	51.670	47.560
5.6480	65.650	71.820	58.630	51.540	47.740
5.6520	64.460	72.340	59.300	52.900	47.750
5.6560	65.080	72.350	58.860	52.360	47.890
5.6600	65.480	72.120	59.290	53.120	48.080
5.6640	65.050	71.770	59.790	53.510	46.710
5.6680	65.560	71.900	60.050	53.260	48.170
5.6720	65.460	71.060	60.400	53.390	47.990
5.6760	65.670	72.370	61.040	53.550	48.360
5.6800	66.440	72.930	60.030	53.730	47.720
5.6840	66.540	72.950	60.620	53.980	47.460
5.6880	67.000	73.090	61.630	54.280	47.380

5.6920	66.530	73.430	61.810	54.600	47.800
5.6960	67.650	73.670	61.620	54.160	50.570
5.7000	66.890	73.580	61.550	53.350	53.710
5.7040	67.130	73.750	61.270	54.080	50.500
5.7080	67.100	74.460	62.820	54.000	47.320
5.7120	68.340	73.870	63.020	54.750	46.780
5.7160	68.610	74.950	62.580	54.990	46.550
5.7200	68.310	74.750	64.030	55.300	46.900
5.7240	67.820	75.450	64.160	56.710	49.630
5.7280	68.360	76.460	64.370	56.240	48.860
5.7320	69.570	75.310	64.440	55.650	47.020
5.7360	69.970	75.970	64.850	57.080	46.290
5.7400	69.650	76.210	65.220	57.500	47.550
5.7440	69.910	75.860	66.540	57.720	47.920
5.7480	70.340	76.350	65.710	58.210	47.500
5.7520	69.510	76.400	66.110	58.480	48.020
5.7560	70.050	76.060	66.410	59.450	52.230
5.7600	70.880	76.330	67.530	59.710	57.650
5.7640	70.700	77.870	68.100	60.670	53.460
5.7680	69.350	77.860	68.540	59.990	47.310
5.7720	69.230	77.620	67.960	59.800	47.300
5.7760	69.170	77.520	67.670	59.300	53.060
5.7800	69.550	77.260	67.530	59.280	55.820
5.7840	68.940	78.170	66.760	58.060	50.240
5.7880	67.000	78.490	65.860	55.890	49.260
5.7920	66.250	78.520	63.880	55.210	49.220
5.7960	66.380	78.480	63.340	55.060	49.530
5.8000	65.080	78.380	62.420	54.440	48.690
5.8040	64.310	78.690	61.020	53.860	48.180
5.8080	64.240	77.040	59.440	52.720	48.180
5.8120	64.390	77.280	58.430	51.380	48.690
5.8160	64.430	77.190	57.500	51.180	53.360
5.8200	64.240	76.580	56.550	51.100	58.870
5.8240	64.040	76.750	55.780	51.490	54.030
5.8280	64.030	76.520	54.360	51.730	48.240
5.8320	64.550	75.530	54.310	51.530	50.890
5.8360	64.330	75.050	53.820	51.880	51.180
5.8400	63.610	75.510	52.890	51.760	47.990
5.8440	64.680	75.580	52.020	51.390	47.850
5.8480	65.750	75.790	51.090	51.950	48.170
5.8520	65.400	74.650	51.440	51.070	47.460
5.8560	64.920	73.870	51.100	49.670	48.040
5.8600	64.970	73.830	51.300	49.770	47.770
5.8640	65.020	73.080	50.900	49.020	47.780
5.8680	64.610	73.750	50.940	49.630	47.780
5.8720	64.410	73.770	51.850	49.930	47.320
5.8760	63.760	73.690	51.970	49.890	46.430
5.8800	63.770	72.730	51.900	49.610	47.320
5.8840	62.250	74.130	51.900	49.210	45.320
5.8880	62.450	74.610	51.210	48.880	47.930
5.8920	62.590	74.630	52.040	48.640	48.180
5.8960	62.640	74.620	53.380	47.940	47.920
5.9000	62.310	74.250	52.770	48.450	48.110
5.9040	62.280	74.890	52.760	49.200	46.920
5.9080	62.310	74.690	52.620	49.080	47.920
5.9120	61.700	75.610	52.740	49.290	48.020
5.9160	61.670	76.030	53.590	48.950	48.630

5.9200	61.210	75.660	53.400	49.740	50.650
5.9240	61.470	75.780	53.000	48.580	49.320
5.9280	61.250	76.100	53.480	47.910	47.270
5.9320	60.270	76.820	54.620	48.500	48.910
5.9360	60.770	77.960	53.660	49.600	48.980
5.9400	61.670	77.860	54.950	50.060	51.000
5.9440	62.540	78.490	55.740	48.640	54.620
5.9480	61.430	78.840	55.830	49.670	53.170
5.9520	60.360	79.940	56.410	49.250	51.870
5.9560	60.460	80.760	56.540	49.480	52.100
5.9600	60.690	82.410	56.610	50.450	54.570
5.9640	61.840	83.190	56.880	50.390	57.060
5.9680	60.960	83.470	55.900	50.110	59.740
5.9720	60.420	83.600	57.460	49.810	63.530
5.9760	61.040	85.040	57.660	50.660	67.260
5.9800	61.920	86.130	58.260	50.970	71.500
5.9840	62.840	87.330	61.820	50.810	77.950
5.9880	62.710	87.290	65.950	51.970	85.640
5.9920	63.510	89.350	76.380	52.330	97.660
5.9960	98.810	138.25	128.05	52.630	147.82
6.0000	104.89	144.35	134.17	52.300	153.97
6.0040	98.960	138.41	128.24	53.010	148.07
6.0080	63.890	89.600	77.120	53.580	98.040
6.0120	64.630	85.090	66.380	54.330	85.640
6.0160	64.260	83.770	62.220	54.300	77.960
6.0200	64.590	83.990	60.690	54.830	72.180
6.0240	63.540	83.800	59.290	56.510	66.970
6.0280	65.540	84.080	59.270	57.390	63.700
6.0320	66.070	84.100	58.720	56.400	60.030
6.0360	65.970	83.960	57.390	56.470	57.620
6.0400	66.490	84.490	56.970	57.360	54.740
6.0440	66.320	83.720	57.800	58.010	52.940
6.0480	67.230	83.190	57.810	58.160	51.510
6.0520	67.430	83.030	57.520	57.630	54.790
6.0560	68.630	83.350	56.890	56.570	57.290
6.0600	67.930	82.750	57.370	57.110	54.020
6.0640	67.440	82.130	57.340	56.290	49.510
6.0680	69.060	81.790	56.100	55.910	48.990
6.0720	68.690	81.380	55.310	55.910	48.510
6.0760	67.280	81.330	56.500	54.330	52.110
6.0800	67.010	82.430	56.360	53.460	56.280
6.0840	66.330	82.390	55.990	53.470	52.210
6.0880	66.450	81.790	55.270	53.660	47.170
6.0920	66.310	80.710	55.010	53.790	47.990
6.0960	65.850	80.810	54.760	53.110	48.320
6.1000	65.120	80.330	55.180	52.720	48.700
6.1040	65.040	79.770	55.130	52.200	48.080
6.1080	65.530	79.650	54.990	53.270	56.280
6.1120	65.600	80.100	54.600	53.490	57.220
6.1160	65.200	79.510	54.730	52.760	49.270
6.1200	65.490	79.510	54.820	53.200	51.670
6.1240	65.070	79.090	54.650	52.510	49.660
6.1280	65.160	78.360	55.520	52.360	47.220
6.1320	65.310	78.210	55.190	53.060	47.490
6.1360	65.050	77.420	55.570	52.610	47.150
6.1400	64.310	77.340	54.240	51.990	47.810
6.1440	63.430	76.980	54.500	52.950	47.960

6.1480	62.590	77.550	55.680	52.650	48.070
6.1520	63.450	77.940	57.620	52.460	47.760
6.1560	63.670	77.310	58.340	52.160	48.990
6.1600	63.960	76.150	57.920	52.780	49.910
6.1640	63.090	75.590	57.200	52.530	53.200
6.1680	63.930	74.300	58.400	51.450	51.850
6.1720	65.000	74.220	59.150	52.480	47.530
6.1760	65.140	74.580	60.220	53.610	55.670
6.1800	65.690	74.930	60.460	52.730	61.860
6.1840	65.840	74.880	62.060	52.960	55.990
6.1880	65.010	74.030	63.070	52.980	46.960
6.1920	65.460	74.870	63.660	53.130	46.110
6.1960	65.700	75.070	65.090	53.620	47.280
6.2000	65.970	74.520	64.970	53.930	47.090
6.2040	66.650	74.190	65.530	54.190	46.800
6.2080	66.980	73.950	66.470	55.330	46.900
6.2120	67.890	74.410	66.660	55.430	47.460
6.2160	68.310	74.510	67.420	56.160	50.540
6.2200	68.690	74.990	67.190	57.110	55.680
6.2240	68.630	75.330	68.520	57.400	52.880
6.2280	69.920	74.340	67.890	57.530	47.660
6.2320	70.950	74.460	68.370	57.800	47.570
6.2360	70.600	74.510	68.820	58.970	52.830
6.2400	69.740	72.690	69.170	59.870	56.560
6.2440	71.040	72.840	68.370	59.490	51.070
6.2480	71.280	74.060	68.320	59.610	45.640
6.2520	70.880	74.590	68.810	60.310	47.220
6.2560	71.420	73.330	68.690	60.460	47.750
6.2600	72.020	73.270	68.840	61.690	47.510
6.2640	71.060	73.540	69.110	61.220	46.600
6.2680	70.940	74.610	69.740	60.390	46.360
6.2720	72.130	74.760	68.910	61.560	48.550
6.2760	71.100	73.840	68.690	62.240	50.290
6.2800	70.000	73.960	68.700	60.460	47.250
6.2840	70.340	74.740	67.630	60.060	47.320
6.2880	69.620	74.820	68.090	61.130	47.980
6.2920	69.150	74.840	68.250	61.550	47.340
6.2960	69.350	74.570	68.690	60.950	53.090
6.3000	70.170	74.800	68.290	60.430	58.110
6.3040	68.490	75.270	67.480	60.310	53.490
6.3080	67.190	75.850	65.970	59.950	49.210
6.3120	67.080	75.400	65.230	59.200	46.970
6.3160	67.080	74.940	65.320	59.010	47.750
6.3200	66.740	74.700	64.730	59.630	47.320
6.3240	66.390	74.080	64.310	59.990	46.910
6.3280	66.240	73.940	63.620	58.790	47.110
6.3320	65.340	73.560	62.890	58.500	48.590
6.3360	64.400	73.840	62.840	58.440	47.210
6.3400	62.720	73.100	62.060	58.110	47.610
6.3440	62.540	73.560	60.430	58.080	46.910
6.3480	62.220	73.730	59.170	57.990	47.420
6.3520	61.210	73.090	57.930	56.950	46.370
6.3560	60.380	74.180	56.570	56.520	47.460
6.3600	60.540	74.040	56.930	55.730	49.710
6.3640	60.570	73.550	56.940	54.950	48.180
6.3680	60.670	73.910	56.700	55.800	47.990
6.3720	60.830	73.730	55.520	55.690	47.280

6.3760	60.450	74.280	55.870	55.120	46.550
6.3800	60.670	74.490	55.860	55.160	46.800
6.3840	61.630	74.210	55.540	54.790	46.770
6.3880	62.010	73.840	55.740	53.580	47.900
6.3920	63.430	73.670	56.880	54.080	47.520
6.3960	63.270	73.060	58.050	53.940	50.300
6.4000	63.040	72.600	57.800	53.280	52.670

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<p>The objective of this study was to acquire detailed acoustic data and limited flow visualization data for numerical validation of a new model of sound absorption by a very narrow rectangular slit backed by a cavity. The sound absorption model is that being developed by Dr. C. K. W. Tam of Florida State University. This report documents normal incidence impedance measurements of a singular rectangular slit orifice with no mean flow. All impedance measurements are made within a 1.12 inch (28.5 mm) diameter impedance tube using the two-microphone method for several frequencies in the range 1000 – 6000Hz and incident sound pressure levels in the range 130 – 150 dB. In the interest of leaving the analysis of the data to the developers of more advanced analytical and computational models of sound absorption by narrow slits, the authors have refrained from giving their own explanations of the observed results, although many of the observed results can be explained using the classical understanding of sound absorption by orifices.</p>			
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